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ABSTRACT

Through a variety of learning strategies, this curriculum guide provides an age-appropriate Acquired Immune Deficiency Syndrome (AIDS) education for students grades 5-8. An introduction incorporates curriculum objectives, classroom environment, teacher responsibilities, time, instructional strategies, parental involvement and support, and evaluative methods. The main body of the guide is comprised of 12 lessons that include reproducible student pages. The lessons cover: (1) assessment of students' current knowledge about Human Immunodeficiency Virus (HIV); (2) information sources such as newspaper articles; (3) sources of information, including human resources; (4) encouragement of students to use written resources to verify information; (5) some epidemics of the past; (6) study of disease as a context for the study of HIV transmission; (7) causes and transmission of contagious diseases; (8) comparison with other sexually transmitted diseases; (9) the importance of a healthy immune system; (10) answers to students' questions about how HIV is and is not transmitted; (11) a variety of HIV and AIDS symptoms; and (12) compassion for persons living with HIV. Appendices provide a glossary, an evaluation record sheet, pre- and posttests and answer keys, and sample parent letters. A student workbook to accompany the guide is included. (LL)

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CONTEMPORARY HEALTH SERIES

INTO ADOLESCENCE:

Learning About HIV

Revised Edition

A Curriculum for Grades 5–8

Jory Post, MA and Carole McPherson, MA

Contemporary Health Series
Kathleen Middleton, MS, CHES, Series Editor

ETR Associates
Santa Cruz, California
1994

ETR Associates' Contemporary Health Series

Into Adolescence (for grades 5–8)

- Choosing Abstinence
- Enhancing Self-Esteem
- Learning About HIV
- Learning About Reproduction and Birth
- Living in a Family
- A Time of Change (puberty)
- Avoiding Drugs
- Communicatng Emotions
- Becoming a Health-Wise Consumer
- Making and Keeping Friends
- Living Without Tobacco
- Actions for Wellpower
- Caring for Our Planet and Our Health
- A Menu for Good Health
- Fitness, Health and Hygiene
- Stopping Violence

Entering Adulthood (for grades 9–12)

- Connecting Health, Communication and Self Esteem
- Coping with Sexual Pressures
- Living in Relationships
- Preventing Sexually Related Disease
- Understanding Reproduction, Birth and Contraception
- Balancing Stress for Success
- Understanding Depression and Suicide
- Examining Drugs and Risks
- Developing Responsibility and Self-Discipline
- Planning Life Directions
- Creating a Healthy Environment
- Moving into Fitness
- Looking at Body Image and Eating Disorders
- Skills for Injury Prevention

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CONTENTS

Editor's Preface vii

Introduction 1
    Overview 3
    Objectives 4
    Setting Classroom Atmosphere 5
    Teacher Responsibilities 6
    Time 6
    Instructional Strategies 7
    Parent Involvement and Support 9
    Evaluative Methods 10

Lessons

1. What We Think We Know 13
2. HIV and AIDS in the News 21
3. Using Our Experts 31
4. Information Verification 39
5. Epidemics: A Peek at the Past 45
6. Characteristics of Diseases 57
7. Diseases: Causes and Transmission 67
8. A Comparison of STD 81
9. The Immunology of HIV 95
10. The Truth About Myths 109
11. Symptoms Don't Reveal Everything 125
12. HIV, AIDS, Death and Compassion 137

Appendixes

A. Glossary 145
B. "I Learned..." Evaluation Record Sheet 153
C. Pre–Post Test and Pre–Post Test Answer Key 157
D. Sample Parent Letters 163

EDITOR'S PREFACE
Contemporary Health Series

Health educators and practitioners know that prevention of health problems is far more desirable than treatment. The earlier the knowledge and skill to make healthful decisions are instilled, the greater the chance a healthful lifestyle will be adopted. School is the logical place in our society to provide children, adolescents and young adults the learning opportunities essential to developing the knowledge and skills to choose a healthful life course.

The **Contemporary Health Series** has been designed to provide educators with the curricular tools necessary to challenge students to take personal responsibility for their health. The long-range goals for the **Contemporary Health Series** are as follows:

Cognitive. Students will recognize the function of the existing body of knowledge pertaining to health and family life education.
Affective. Students will experience personal growth in the development of a positive self-concept and the ability to interact with others.
Practice. Students will gain skill in acting on personal decisions about health-related life choices.

Within the **Contemporary Health Series** there are two curricular divisions: *Into Adolescence* for middle school teachers and *Entering Adulthood* for high school teachers. The *Into Adolescence* modules focus on several different health and family life topics. Modules addressing puberty, AIDS, the family, self-esteem, reproduction and birth, sexual abstinence, friendship, emotions, nutrition, fitness, consumer choices, the environment, violence and drug, alcohol and tobacco education have been developed by skilled author/educators.

Entering Adulthood modules address reproduction and contraception, responsibility, stress, depression and suicide, life planning, communication and self-esteem, AIDS and other STDs, relationships, sexual abstinence, fitness, body image, the environment, injury prevention and drug, alcohol and tobacco education.

All the authors are, or have been, classroom teachers with particular expertise in each of the topic areas. They bring a unique combination of theory, content and practice resulting in curricula which weave educational learning theory into lessons appropriate for the developmental age of the student. The module format was chosen to facilitate flexibility as the modules are compatible with each other but may stand alone. Finally, ease of use by the classroom teacher has driven the design. The lessons are comprehensive, key components are clearly identified and masters for all student and teacher materials are provided.

The **Contemporary Health Series** is intended to help teachers address critical health issues in their classrooms. The beneficiaries are their students, our children, and the next generation.

Kathleen Middleton, MS, CHES
Series Editor

INTRODUCTION

The current level of sophistication in music, videos and movies has created an informed and inquisitive group of adolescents. Many have also had access to adult magazines, TV channels and videos. There is little these adolescents haven't seen or heard. They have a strong need to have their questions about sexuality answered in an open, honest and sensitive way.

Such questions are most appropriately addressed as one part of a larger comprehensive health education program. In this era, such questions will include the topic of HIV. HIV prevention must also be addressed openly and honestly.

HIV prevention education provides the basis for prevention of HIV in years to come. Because no successful vaccination or cure for HIV infection has yet been found, the best hope for prevention is accurate and honest information about HIV—its symptoms, its effects and its transmission.

HIV prevention education must begin by taking inventory of what students know, including what they have heard, what they have seen and what they think they know. A curriculum can then be adjusted to be relevant to a specific audience. All future lessons will either prove, disprove or expand what students already know.

Rather than expect that students will learn everything they need to know within a classroom setting, we can teach them about available resources and help them develop personal learning and research skills. Such skill development is an important part of a comprehensive health curriculum.

Students should be aware that sexual beings have responsibilities to themselves and others. One of those responsibilities is understanding the nature and causes of sexually transmitted disease, including HIV.

The transmission of HIV is one of the most important concepts to develop at this grade level. Students are beginning to go through puberty and their bodies and minds are pushing them toward becoming sexual beings. They are beginning to be curious about sexuality, drugs and everything else that may be new to them.

Students must know how HIV is transmitted and how it isn't transmitted. This information must be clear and straightforward. Once students are clear about ways HIV can and can't be transmitted, then prevention can be addressed.

The best way to prevent HIV transmission is to avoid risky behaviors. These behaviors include injection drug use and other blood-sharing activities and sexual activity. Therefore, students are encouraged to abstain from these activities.

Many people believe that abstinence should be the only recommendation for prevention for students at this age level. However, the reality is that some students are either already experimenting with sex and drugs or will be in the near future. These students cannot be ignored and left prey to a deadly disease because they make risky choices.

Such students should be told that latex condoms and nonoxynol-9, a spermicide, will help them avoid contact with HIV. They must understand the increased risk of multiple partners and the risks of injection drug use and other blood-sharing activities. Of course, at all times we must reinforce the message that sexual abstinence and avoidance of any blood-sharing activities are the only sure ways to prevent HIV infection.

Students must also be familiar with the various symptoms that accompany HIV. They need to know that people infected with HIV may have no symptoms for many years. They also need to know that many of the symptoms of HIV infection are also symptoms of other, more common diseases and that having one or more symptoms is no reason to panic. Only those who have engaged in risky behaviors need be concerned if such symptoms persist over time.

Overview

The first lesson in the curriculum offers an opportunity to assess students' current knowledge about HIV. Students then generate questions to direct further research and study. They begin to look at sources of additional information.

Lesson 2 continues this look at information sources, asking students to look at a variety of news articles on HIV. Students are also asked to classify HIV-related issues into sub-categories such as politics, economics, human rights and statistics.

In the third lesson, sources of information are expanded to include human resources. In this lesson, students have an opportunity to create questions about HIV and present those questions to a guest expert on the disease.

Lesson 4 encourages students to use written resources to verify the information they have about HIV and to answer their questions about the virus.

In Lesson 5, students look at some epidemics of the past as a basis for understanding the current HIV epidemic.

Lesson 6 begins the study of disease as a context for the study of the transmission of HIV. Students consider the characteristics of a variety of contagious diseases.

Lesson 7 continues the study of disease, looking at the causes and transmission of the contagious diseases first considered in Lesson 6.

HIV is a sexually transmitted disease (STD). Therefore, it is appropriately studied in conjunction with other STD. In Lesson 8, students compare a variety of STDs, studying their incidence, transmission, symptoms and prevention.

Lesson 9 helps students understand the importance of a healthy immune system and HIV's effect on the body's immune system. It includes key vocabulary.

Lesson 10 addresses students' questions about how HIV is and isn't transmitted. It helps students separate myths from facts and learn what risky behaviors to avoid to prevent HIV infection.

In Lesson 11, a simulation helps students understand the variety of symptoms related to HIV infection, from no symptoms to AIDS. The lesson also introduces the HIV test as the only way to know if you are infected.

The last lesson addresses the topic of compassion for persons living with HIV infection.

Objectives

Lesson 1	*What We Think We Know*	■ Students will be able to describe why it is important to learn about HIV.
Lesson 2	*HIV and AIDS in the News*	■ Students will be able to classify information about HIV and AIDS according to specific criteria. ■ Students will be able to explain the importance of newspapers in keeping them informed about critical issues.
Lesson 3	*Using Our Experts*	■ Students will describe how to utilize experts to find accurate information about HIV.
Lesson 4	*Information Verification*	■ Students will be able to analyze the credibility and accuracy of information about HIV.
Lesson 5	*Epidemics: A Peek at the Past*	■ Students will be able to demonstrate the impact of a specific epidemic on individuals and society.
Lesson 6	*Characteristcs of Diseases*	■ Students will be able to differentiate among various characteristics of disease.
Lesson 7	*Diseases: Causes and Transmission*	■ Students will be able to describe the causes, symptoms, transmission, effects, treatment and prevention of some communicable diseases.
Lesson 8	*A Comparison of STDs*	■ Students will be able to explain characteristics of sexually transmitted diseases, including HIV infection.
Lesson 9	*The Immunology of HIV*	■ Students will be able to illustrate how HIV attacks the immune system.
Lesson 10	*The Truth About Myths*	■ Students will be able to differentiate between facts and myths about the transmission of HIV and prevention of infection.

Lesson 11	*Symptoms Don't Reveal Everything*	■ Students will be able to identify the symptoms related to HIV infection. ■ Students will be able to explain why it is difficult to determine HIV infection.
Lesson 12	*HIV, AIDS, Death and Compassion*	■ Students will demonstrate compassion for a person with AIDS.

Setting Classroom Atmosphere

The atmosphere established in the classroom is critical to the success of any education program. It is of particular importance when the subject is in a sensitive area such as sexuality. Students must be able to share what they know, or what they think they know, and teachers should attempt to answer all questions that arise.

If teachers don't know an answer, they should say so and tell students they will try to find out. Some students will be too shy to ask explicit questions, so an anonymous question box should be introduced at the beginning of the unit. (See *Instructional Strategies.*)

Every student's opinion should be valued. Some of the concepts in this unit on HIV prevention may evoke differences of opinion. Teachers must remain objective throughout the discussions and offer access to all appropriate information related to these issues.

Groundrules can assist teachers in establishing a comfortable and open environment for classroom discussion and learning. If you choose, students can participate in determining class groundrules. The following list contains some suggested groundrules:

- No put-downs.
- Be sensitive to other people's feelings.
- It's OK to pass (not answer a question).

Try to use scientific terms rather than slang. If students know only the slang term, the teacher should supply the correct term.

- No one should talk about personal matters or ask personal questions.
- No talking about other students' comments outside the classroom.
- There are no dumb questions. If teachers feel questions are too personal, they may pass.

Teacher Responsibilities

Before teaching any units on sexuality, you must check all state and district policies regarding such education. This responsibility is especially important regarding HIV prevention education. Be sure to follow all state and district guidelines regarding parental notification. Appendix D includes a sample parent letter and sample permission slips.

As with other sensitive topics, the teacher's role of facilitator and classroom manager is of primary importance. When teaching about preventing HIV infection, teachers must be sensitive, direct and honest about the issues related to HIV transmission and its prevention. In so doing, you will create an atmosphere in which students are more likely to participate in the educational process in an honest and meaningful way.

Teachers also have a responsibility to teach about HIV in a way that is most sensible and appropriate for students in the grade levels with which they work. You must understand the maturity level of individual classes and be able to adjust the available material to fit those needs.

Some students are experimenting with sex and drugs at early ages. The level of experimentation will vary greatly from school to school and among students within a school. Teachers must be sensitive to the specific needs of their student population regarding the depth and breadth of information presented about HIV and its prevention.

Teachers must also make every attempt to include family members in this part of their children's education. Communicate with parents and other family members about the nature of your topics and the assignments related to HIV prevention education. Students should be encouraged to discuss these topics with their families.

Time

The time indicated for each lesson is an approximate measure, based on a 45-50 minute class period. The actual time required to complete all activities in a given lesson will vary, depending on student interest and ability. Lessons that will probably require more than one class period to complete are indicated.

Instructional Strategies

This module incorporates a variety of instructional strategies designed to develop and maintain student interest and motivation. Some strategies are traditional, while others are more interactive, encouraging students to help each other learn. The specific strategies used in each lesson are clearly identified. An alphabetical list of instructional strategies and their descriptions follows:

Anonymous Question Box
Brainstorming
Categorizing
Class Discussion
Cooperative Learning Groups
Creative Writing
Current Events
Developing Research Questions
Dramatic Presentations
Interviewing
Oral Presentations
Overhead Transparencies
Research
Roleplays
Script Writing
Teacher Lecture
Worksheets

Anonymous Question Box

It should be made clear that all questions placed in the box will be taken seriously and will be responded to by the teacher. In some cases, the teacher may have to tell the class he or she does not know the answer to a question, but will do the necessary research and report back to the students.

Brainstorming

Brainstorming is used to stimulate discussion of an issue or topic. Students are asked to give their ideas and opinions without comment or judgment from the teacher or other students. Ideas can be listed on the board, on butcher paper or newsprint or on a transparency. Brainstorming should continue until all ideas have been exhausted or a predetermined time limit has been reached.

Class Discussion

A class discussion led by the teacher is one of the most valuable strategies used in education. It can be used to initiate, amplify or summarize a lesson. Most of the lessons in this module include some form of class discussion.

Cooperative Learning Groups

Cooperative learning is one of the most common and effective strategies used in this module. Students work in small groups to disseminate and share information, analyze ideas or solve problems. The size of the group depends on the nature of the lesson and the make-up of the class. Groups work best with from two to six members.

Group structure will affect the success of the lessons. Groups can be formed by student choice, random selection or a more formal, teacher-influenced process. Groups seem to function best when they represent the variety and balance found in the classroom. Groups also work better when each student has a responsibility within the group (reader, recorder, timer, reporter, etc.).

While groups are working on their tasks, the teacher should move from group to group, answering questions and dealing with any problems that arise. At the conclusion of the group process, some closure should take place.

Creative Writing

Having students write about topics they are studying integrates language arts and personal experience into the lesson. It allows students to use imagination and creativity to express their understanding of content.

Current Events

The use of current events as an instructional strategy can apply to every curricular area. An informed public must be aware of issues and able to analyze those issues based on up-to-date information. By using current events as an integral strategy to lessons, we are promoting a positive habit of reading newspapers and magazines on a regular basis.

Developing Research Questions

It is a good idea to help students design appropriate questions related to an issue before they begin research. Brainstorming is a good process to use when developing questions, whether done as a whole class or in small groups. Creating good questions will help guide students successfully through research methods.

Dramatic Presentations

Dramatic presentations may take the form of roleplays, skits, news or radio shows. Such presentations are highly motivating activities because they actively involve students in learning desired concepts or practicing certain behavior.

Interviewing

In the quest for information on a topic, it is sometimes helpful to invite experts into the class or to interview others (family members or friends) outside of class. Advance preparation for an organized interview session increases the learning potential. A brainstorming session before the iterview allows students to develop individual questions to ask during the interview.

Oral Presentations

Students sometimes present information orally to the rest of the class. Such presentations may be done by individual students or as part of a group or panel. Students enjoy learning and hearing from each other, and the experience stimulates positive interaction.

Overhead Transparencies

Overhead transparencies are an effective visual aid to use in presenting information and graphic examples. Most of the lessons in this module provide teacher resources that can be used as transparencies.

Research

Research may mean giving students prepared materials which they must use to complete a written or verbal assignment, or it may mean having students locate resources and gather information on their own.

Roleplays

Roleplays are highly motivating activities for students because they actively involve students in learning desired concepts or practicing certain behaviors. Students act out or act as if they are in a specific situation. Sometimes they are given a part to play, and other times they are given an idea and asked to improvise. Allow students time to decide the central action of the roleplay situation and how the roleplay will end.

Script Writing

Information may be disseminated in a number of ways. One unique way is to have students use factual historical information to write a radio script that can then be presented to the whole class. This technique requires students to become experts regarding their information and helps them develop writing skills.

Teacher Lecture

A traditional teacher lecture disseminates information directly from the teacher to students. In some lessons, this approach is the best way to provide information. Generally, this method is combined with other methods to assure high-level motivation and learning.

Worksheets

Most lessons in this module include worksheets. Students may be asked to complete the worksheets individually or in cooperative learning groups. Some worksheets include an activity to be completed outside of class. Completed worksheets should generally be reviewed with the whole class to provide relevant and timely feedback.

Parent Involvement and Support

What is taught in the classroom will be more meaningful when supported and discussed at home. Although some parents are more actively involved with their children's education than others, we must make the assumption that the majority of parents are eager and willing to participate and learn.

There are a number of opportunities for teachers to invite parent participation in an HIV education program. The first point of contact can be a well-organized preview night inviting parents to view and discuss materials to be used. This allows parents to air their fears and teachers to clarify their approach to teaching about HIV.

This session can be used as a springboard for other parent workshops in HIV education. It is a good time to ask those in attendance if they are interested in future informative workshops on HIV, possibly paralleling their children's lessons in the classroom.

Another way to gain and maintain parent support is to create homework assignments for students to complete with parents at home. Incorporating this strategy helps insure that education about HIV prevention is sensitive to cultural, religious and ethnic norms of families and the larger community. These assignments should be designed to promote parent/child discussions about opinions and values.

Even if parents are unable to participate in any of the ways suggested above, you must follow all state and district guidelines regarding parent notification. Most districts will require parental permission before students can participate in the program.

If some students are not allowed to participate, their parents should be invited to join the teacher and student in designing alternate activities for the duration of the HIV prevention curriculum. See the **Sample Parent Letter** and **Sample Permission Slips** in Appendix D.

Evaluative Methods

Each lesson provides the teacher with one or more methods for evaluating student performance on stated objectives. The methods are listed following the procedure section of each lesson. Evaluative methods include analysis and comment on worksheets and other written materials, as well as observation of individual and group presentations and individual responses. This module also provides an opportunity for students to do self-evaluations.

Before giving the students a copy of the **"I Learned..." Evaluation Record Sheet** (Appendix B, brainstorm and discuss ways they can help the success of learning in the classroom. Build a list of criteria for being a successful student, including the ones listed on the Participation/ Learning Record. Guide the students in ranking themselves by circling the appropriate number. Have them discuss how they ranked themselves with their cooperative learning groups when appropriate.

Calling for "I learned" statements at the end of the period is a great way to sum up the activity. When introducing the **"I Learned..." Evaluation Record Sheet**, call for suggestions. Write at least three statements on the board. Students may copy one of the statements or make up their own.

Encourage students to write a fact. Discourage them from using the word "about," because what follows that term is too general. "Today I learned that HIV is not transmitted by mosquitoes" is acceptable; "Today I learned about HIV" is not. "I learned nothing" is *not* acceptable. Make students responsible for learning. Direct them to material to read until they learn something to record.

The teacher may change the evaluation statement to a question: "My question for the public health nurse is, 'How many cases of HIV infection have we had in our county since they started recording?'" Another evaluative statement could be a position statement: "I believe that testing for HIV should be confidential so people won't be afraid to be tested." See Appendixes for sample **"I Learned..." Evaluation Record Sheet**.

Using the comments on the last part of the evaluation form becomes a good way to communicate with the students. Encourage them to write about any personal successes or problems they want noted.

It is impossible to objectively, quantitatively or qualitatively measure the development and maintenance of prevention skills, and it is inappropriate to grade student work that is reflective of individual feelings, beliefs or behaviors. Therefore, the evaluation methods serve as tools to assess students' participation and cognitive learning from each lesson.

LESSON 1

WHAT WE THINK WE KNOW

Objective

Students will be able to describe why it is important to learn about HIV.

Time

One class period.

Overview

When starting any unit of study, a teacher needs to survey the students to see how much information they already have. Often a pretest or an inventory is given. In the area of HIV education, the teacher needs to know what fears, myths and misinformation the students hold. The teacher will then be sure to give correct and up-to-date information to dispel misconceptions.

This lesson initiates the unit on HIV prevention by asking students to tell everything they think they know about HIV and AIDS. The next step is to generate questions to direct research and study. Finally, students read newspaper articles to substantiate some of the brainstorm statements and to answer generated questions. Both brainstorm lists of statements and questions are used as a point of reference throughout the unit.

Instructional Strategies

Brainstorming, cooperative learning groups, reading.

Teacher Materials and Preparation

HAVE:

- ✓ Large newsprint pads or rolls of butcher paper, masking tape or tacks for displaying brainstorm lists.
- ✓ Articles relating to HIV and AIDS from magazines, newspapers and student publications. Articles must include name of newspaper and date of publication. Ask parents to look for and save articles for you at parent preview night.

COPY:

- ✓ One simple (single column, 4 or 5 inches) newspaper article relating to HIV or AIDS or **Sample Article**, one copy for each student.
- ✓ **"I Learned" Evaluation Record Sheet** from the appendix, one for each student.
- ✓ Copy **HIV Pre-Post Test**, one for each student (optional).

MAKE:

- ✓ Poster of challenge questions:
    Is that fact or opinion?
    Why do you hold that opinion?
    How do you know that?
    Where did you get your information?
    Why is that (resource) an expert?

Procedure

■ Set the stage for the HIV unit of study. Point out to students that this has been in the news media for some time. Encourage students to report what they have heard and seen recently. Assure them they probably know a great deal about the topic and before you begin study you want to know what they think they know.

Record student responses on large sheets of paper titled "Everything We Think We Know About HIV and AIDS" and have students brainstorm questions.

Explore with students the differences between fact, opinion and myth.

- *Fact:* Any statement strictly true.
- *Opinion:* A conclusion or judgment held with confidence, but falling short of positive knowledge. (Some opinions have a factual basis; most have an emotional origin.)
- *Myth:* Popular fable or folk tale (synonyms under fiction).

Point out that many statements on the brainstorm chart are probably opinion. Display the poster of challenge questions and model challenging by asking the questions where appropriate.

Older and more advanced students will be able to challenge statements for accuracy and fact. Identify questionable statements with a question mark for later verification.

■ Tell students that their brainstorm list of "Everything We Think We Know About HIV and AIDS" is just a beginning. Explain that in order to be well-informed about the topic they will be developing a list of questions to guide their research. You may need to explain the concept of *scientific research.*

First, the problem needs to be identified or the question formed. In this case your question is "What are the facts about HIV and AIDS?"

Second, information needs to be gathered. Remind students that scientists often go into the field to study the actual object. They may also use a laboratory. They talk to experts or read about their findings.

Third, the scientific process involves forming and testing the hypotheses (educated guesses), drawing conclusions and developing theory and law. These have all been part of research.

Help students generate "Questions to Guide Research." List questions on large sheets of paper to keep on display during unit. Add other questions to supplement student list.

Be sure your list includes:

- What does HIV stand for?
- What does AIDS stand for?
- What is the difference between HIV and AIDS?
- How can HIV be caught?
- How can HIV-infection be prevented?
- How can AIDS be treated?
- How can a person tell he or she is infected with HIV?
- Could a person become infected with HIV from being near a person who is infected?
- How many people are infected with HIV?
- How many have died from AIDS?

Conclude this activity by explaining that the list of questions will remain on display throughout study of topic. Students are to add any new questions they think of during the study.

■ Give each student a copy of the newspaper article you selected or use the Sample Article provided. Select students to read one paragraph at a time aloud to the class. Look at the brainstorm lists of questions and statements to see which are addressed in this article. Help students see that the first sentence of the article has the main idea and that the following sentences support that idea. Guide them to underline the most important facts with their pencils, or hi-liters if available.

Put indicators (such as check marks) next to substantiated (or verified) brainstorm statements and answered questions. List resource (newspaper name and date of publication) by each statement to verify where the information came from. Repeat this process throughout the study of HIV. Conclude by asking for and listing any additional questions the students may have.

Evaluation

Have students write an "I learned" statement and rank themselves on their level of cooperation and participation. Students may use the **"I Learned" Evaluation Record Sheet** in the appendix.

Follow-Up Extension

It may be helpful to rewrite the brainstorm statements in categorical groups, eliminating repetitive statements. This is a good process for mature students and can be assigned for extra credit.

Bring newspapers and TV schedules to class. Assign a few students to cut out and post relevant items on classroom bulletin board.

Give students the **HIV Pre-Post Test**. Tell them this test won't be graded. It will provide an opportunity to assess what they know and how much they learn during this unit on HIV.

Alternative Strategy for More Advanced Students

At the conclusion of brainstorming questions, arrange students in cooperative learning groups of three. Have enough articles for each group to use a different article.

Assign each group member a task: reader, recorder and reporter. Have them read article to determine the main points. Recorder should hi-lite these. Reporter should report back to the group. Class will decide which items on the brainstorm lists of statements and questions the article addresses.

Sample Article

New York Times Sunday June 28, 1992

AIDS, Fatally Steady in the U.S., Accelerates Worldwide

Back in the mid-1980's, when every scrap of information about AIDS was treated as urgent news, the Centers for Disease Control issued new totals for AIDS cases and deaths every week. In 1989, with trends assuming a familiar contour, they switched to once a month. This year, it became once every three months.

No one is complaining because, barring a medical breakthrough, the course of AIDS in the United States appears to be depressingly predictable. Researchers now speak of a "mature" epidemic, of the "plateauing" of new cases and deaths, and of a pool of H.I.V.-infected people that is in a "steady state."

But what plateaus, and what a steady state.

Through March, 218,000 cases of AIDS had been reported, and 139,000 deaths. Allowing for underreporting, the C.D.C. believes that from 50,000 to 60,000 people will develop AIDS during each of the next few years, according to Dr. Harold Jaffe, acting chief of the AIDS division.

About 45,000 people will die of AIDS this year, Federal experts believe, and the toll will rise until it levels off at about 50,000 a year by 1994.

In other words, in the next three or four years, as many Americans will die of AIDS as did in the sad, shocking 11 years since the disease was detected. And that will be far from the end of it.

The C.D.C. estimates, very roughly, that one million Americans are infected with H.I.V., the virus that causes insidious damage culminating in AIDS. And they believe that 40,000 to 80,000 are newly infected each year — about the same number who die. Hence, a "steady state."

If the epidemic is leveling off here, it is not in the world as a whole. In Africa and Southeast Asia, it is spreading rampantly. Worldwide, perhaps 10 million people are now infected and 40 million may be by the year 2000, according to World Health Organization projections that some experts consider conservative.

Even in the United States, which is more capable than most countries of galvanizing a response, the numbers may be losing the power to horrify.

"It's astounding to me, but most places I go, people hardly seem to know there's an epidemic," said Dr. June E. Osborn, dean of the University of Michigan School of Public Health. Except on the East and West Coasts, she said, "You talk about the numbers involved and people look at you like you're making it up."

The crisis means that programs like Medicaid and Social Security must pay more. But discretionary spending — money for research, prevention and patient services like housing — is leveling off.

Dr. Osborn worries that the White House and Congress are thinking, in effect, "maybe we've done enough about AIDS for now." On top of weariness and disbelief, a perception that AIDS mostly threatens poor people and minority groups may also be sapping public generosity.

Of the 40,000-plus people infected each year, perhaps a third are drug abusers, said Dr. James Allen, director of the National AIDS Office at the Public Health Service. At least another third are gay men. Most of the rest are infected heterosexually — and most of these are black and Hispanic women. Up to 2,000 babies are born infected each year, and most die within several years.

People who are tested and get good counseling are less likely to infect others, research suggests. But one of the major reasons to get tested is the chance to stave off illness with frequent doctor visits and early drug treatment that costs thousands of dollars a year — care that many poor people do not qualify for until they are so sick that they are disabled.

"What incentive do people have to change their behavior if the system says, 'get tested and there's nothing else we can do for you'?" said Jeffrey Levi of the AIDS Action Council.

LESSON
2

HIV AND AIDS IN THE NEWS

Objectives

Students will be able to classify information about HIV and AIDS according to specific criteria.
Students will be able to explain the importance of newspapers in keeping them informed about critical issues.

Time

One class period.

Overview

To participate successfully in a democratic society, citizens must be able to recognize, analyze and offer solutions to current critical issues. If students are to be informed about the AIDS epidemic, they must have access to changing information. Therefore, they must become proficient readers of the press.

This lesson lays the groundwork for future research on HIV and AIDS using newspapers. Groups of students are asked to read teacher-selected articles, analyze their content and classify them according to predetermined categories. Students will place their articles in categories on a prearranged bulletin board. Groups will be assigned current events responsibilities on a rotating basis for the duration of the unit.

Instructional Strategies

Cooperative learning groups, oral presentations.

Teacher Materials and Preparation

COPY:

- ✓ **Descriptions of News Categories** worksheet, one for each student. (If you change the categories, create new descriptions of your categories.)
- ✓ **Newspaper Articles** worksheet, seven copies or one copy for each category. (Adjust worksheet to match the number of categories you choose.)

PREPARE:

- ✓ Current events bulletin board using labels for each of the recommended categories:

Statistics
Economics
Government
People
Civil Rights
Research and New Developments
Health

As necessary, combine, alter or create new categories that are appropriate for students' ability level.

- ✓ Collect articles on HIV and AIDS from newspapers, *Scholastic Magazine* or other student magazines. Try to find one article to match each of the categories you choose.

Procedure

■ Ask the class how it is possible for them to keep up with all the new information being put forth about HIV. Their answers may include watching the news on television, talking to people who know, calling a hotline and reading newspapers. Tell them how important it is to be informed about critical issues. Explain that effective solutions can only be offered if people stay informed.

■ Direct students' attention to the bulletin board displaying the categories you have chosen. Tell them they will be learning to use newspaper articles to help themselves stay informed. Distribute copies of the **Descriptions of News Categories** to each student. Have volunteers read the titles and descriptions of each category. Give students the opportunity to discuss or ask questions about the categories.

■ Divide the class into seven groups (or one for each category). Tell them you will be giving each group one newspaper article. Discuss their responsibilities as a group and write them on the board:

1. Read the article.
2. Decide in which category the article belongs.
3. Say why the article belongs in the category.
4. Fill out a group worksheet for the article.
5. Be prepared to report to the class.

Distribute one article and one group worksheet to each group. Discuss the worksheet example with the students until you are sure they understand. Ask the groups to assign responsibilities to each member. These responsibilities can include readers, recorder, discussion leaders and reporters.

Tell the groups they will each be starting with a different article representing a different category. After all groups have finished their articles, rotate the articles so each group has a new one. Continue with this process until all groups have seen all articles. Tell students to rotate the responsibilities within the group as well.

- When all groups have seen all articles and completed their worksheets, ask for volunteers to report on their group's results. Have students explain why their group chose a certain category for an article. (Remember, it is possible for articles to overlap and fit into more than one category.) Have one group member pin the article to the bulletin board under the appropriate category and explain how newspapers help keep us informed about critical issues.

- Tell students their groups will take turns being responsible for keeping current on HIV information. Use a random method to determine the order of groups, then put the list on the bulletin board. For this ongoing process to be successful, you should not assume that all students have access to newspapers at home, but should supply one in the classroom or library.

Evaluation

Observe student reports on choices of categories and evaluate group worksheets to determine student understanding of categorizing news articles.

Observe students' ability to explain the value of reading the newspaper.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

The process by which HIV updates are shared in class by groups should be determined before this lesson is introduced. This process will vary depending upon the nature of the class and the constraints on weekly and daily schedules. Time can either be allocated on a daily or weekly basis. If reports are given once a week, 30 minutes will be needed to accommodate all groups.

If the schedule is more flexible, each group could be allowed five minutes a day to present an update to the class. This could be the opening for the day or the finale just before class is dismissed.

DESCRIPTIONS OF NEWS CATEGORIES

News articles about HIV and AIDS can usually be classified under more than one of the following categories. Decide which category you think is most appropriate by using these descriptions. Look at key words in headlines to help you make decisions.

Statistics

Many articles focus on updates of local, state or national statistics. These can be based on organized polls, informal estimates or Centers for Disease Control (CDC) reports.

Civil Rights

Articles will quite often focus on social issues. When these issues deal with individual rights or discrimination in areas such as employment, housing, mandatory testing, etc.—then they belong in this category.

Economics

Any articles having to do with money will fit here. These can range from local fund-raisers to the federal budget.

Research and New Developments

Scientists and doctors all over the world are studying HIV and AIDS. Development of new drugs and the effectiveness of currently used drugs and treatments will fit here.

Government

As the problems related to HIV-infection and AIDS intensify, all levels of government are becoming more actively involved. Local school boards are making policy regarding curriculum and other matters. State legislatures are considering mandatory testing and more funds for research. Whenever people are making legal decisions for others in relation to HIV infection, the articles belong in this category.

People

Some articles are simply special interest or feature stores focusing on the individual lives of persons infected with HIV. When the main thrust is to highlight people, the articles belong here.

Health

There may be some articles that fit best under a larger category called health. One example would be an article suggesting a diet for persons infected with HIV that would be better for their immune systems.

NEWSPAPER ARTICLES

Names of Group Members: ____________________

____

EXAMPLE **Recorder's Name** Jeff

Title: Babies Infected with HIV by Infected Mothers on the Rise

Category: People or Health

Reason: This article could be put under Health because it is talking about babies becoming infected with HIV. This could also be put under People because it focuses on babies.

ARTICLE 1 **Recorder's Name** ____________________

Title: ____________________

Category: ____________________

Reason: ____________________

____

____

ARTICLE 2 **Recorder's Name** ____________________

Title: ____________________

Category: ____________________

Reason: ____________________

____

____

STUDENT

ARTICLE 3 **Recorder's Name** ____________________

Title: ____________________

Category: ____________________

Reason: ____________________

____

____

ARTICLE 4 **Recorder's Name** ____________________

Title: ____________________

Category: ____________________

Reason: ____________________

____

____

ARTICLE 5 **Recorder's Name** ____________________

Title: ____________________

Category: ____________________

Reason: ____________________

____

____

ARTICLE 6 **Recorder's Name**________________

Title:________________

Category:________________

Reason:________________

____

____

ARTICLE 7 **Recorder's Name**________________

Title:________________

Category:________________

Reason:________________

____

____

LESSON
3

USING OUR EXPERTS

Objective

Students will describe how to utilize experts to find accurate information about HIV.

Time

Two class periods.

Overview

When doing research on issues, there usually comes a time when more than just written materials are needed. Questions that can't be answered simply by reading may have been generated. This is certainly the case when pursuing the facts about HIV. That's when we must learn how to use human resources.

This lesson is designed to have students create questions they will then ask of a guest expert on HIV.

Instructional Strategies

Cooperative learning groups, interviewing.

Teacher Materials and Preparation

COPY:

✓ **Questions for the Expert** worksheet, one for each student.

PREPARE:

✓ Use the **AIDS Information Sources** to determine what kinds of people you could invite to visit your class to talk about HIV and AIDS, such as a doctor, nurse or other health worker who works with people infected with HIV. Arrange a time for the guest to visit your class to talk to students. Have your expert prepare a 15-minute presentation, and tell him or her that students will follow up with questions.

Note: a Person with AIDS (PWA) can be a powerful speaker. Depending on district guidelines, suggest that this health expert bring along a PWA.

Procedure

■ A few days before your guest visits, tell students you have arranged for an AIDS expert to talk to them about AIDS. This will be their chance to get answers to their questions about AIDS. Tell students they will each be asking the expert at least one question.

Discuss with students how to go about creating good questions to ask the expert. (If you have done Lesson 1 or 2, a number of questions have already been formulated that students can use.) Remind them of the different kinds of information they can seek: who, what, where, when, why and how. Use the sample question from **Questions for the Expert**, "Can you become infected with HIV by drinking from the same glass as a person who is infected?" This question asks "how." Ask volunteers to suggest examples for othertypes of questions. Remind students that good questions should be open-ended, not answerable by a simple yes or no.

■ Distribute copies of the **Questions for the Expert** worksheet to students. Working in groups of two or three, have students think of ten questions to ask the expert and write them on their worksheets.

- When all groups have completed their ten questions, ask for volunteers to share one from each group. Write the questions on the board or on butcher paper. If students have similar questions on their worksheets, have them put a check next to those questions to avoid duplicates.

Continue taking questions from volunteers until there are no new questions. If the class has not yet generated as many questions as there are students, continue the discussion. When there are enough questions, assign one to each student. Have students write their assigned questions at the bottom of their worksheets.

Evaluation

Assess student responses on the **Questions for the Expert** worksheets for quality of questions posed.

Observe student participation in the question- answer period of the interview.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Have students write letters to the expert in appreciation of the visit, mentioning something they learned from the interview.

Make an audio tape or write a letter with appropriate questions to send to other HIV/AIDS experts.

STUDENT

QUESTIONS FOR THE EXPERT

Develop ten questions to ask the expert and fill in the following spaces. Indicate whether the question is a who, what, where, why, when or how type question.

Sample Question: *Can you become infected with HIV by drinking from the same glass as a person who is infected?* **Type:** *How*

Question #1: ____________________
____________________ **Type:** __________

Question #2: ____________________
____________________ **Type:** __________

Question #3: ____________________
____________________ **Type:** __________

Question #4: ____________________
____________________ **Type:** __________

Question #5: ____________________
____________________ **Type:** __________

Question #6: ____________________
____________________ **Type:** __________

Question #7: ____________________
____________________ **Type:** __________

Question #8: ____________________
____________________ **Type:** __________

Question #9: ____________________
____________________ **Type:** __________

Question #10: ____________________
____________________ **Type:** __________

My question for the expert: ____________________
____

AIDS Information Sources

The network of AIDS information and service resources is large. There are organizations or agencies responsible for coordinating AIDS services in every state. The national information number, listed below, maintains up-to-date listings of local resources throughout the country. Not all of these organizations have information hotlines.

Be sure to check any numbers or addresses before giving them to students—they have a tendency to change fairly often.

HOTLINES

National AIDS Hotline
(800) 342-AIDS—Toll-free

Spanish AIDS Hotline
(800) 344-7432

AIDS Hotline for Hearing Impaired
(800) 243-7889

STD National Hotline
(800) 227-8922

Administered by the American Social Health Association
through the Centers for Disease Control (CDC)

WRITTEN RESOURCES: PAMPHLETS, BROCHURES, POSTERS

Call or write for description of materials and price list. Some of these agencies will also provide speakers for school assemblies, consultation for teachers or education for parents.

ALASKA
Alaska AIDS Assistance Association
(800) 478-2437

CALIFORNIA
Southern California AIDS Hotline
(800) 922-AIDS (Southern California only)
(213) 876-AIDS

Spanish AIDS Hotline
(800) 222-SIDA

Reprinted from *Teaching AIDS*, 3rd ed., ETR Associates, 1992, Santa Cruz, CA.

CALIFORNIA, continued

Multi-Language AIDS Information and Referral
(800) 922-2438

TDD AIDS Hotline
(800) 553-AIDS

ETR Associates
P.O. Box 1830
Santa Cruz, CA 95061-1830
(408) 438-4080

San Francisco AIDS Foundation Hotline
P.O. Box 6182
San Francisco, CA 94103
(800) FOR-AIDS (English/Spanish)
(800) 255-3060 (Tagalog)
(415) 863-2437 (San Francisco only)

HAWAII

State AIDS & STD Hotline
Oahu: (800) 922-1313
All other islands: (800) 321-1555

MARYLAND

Health Education and Resource Organization (HERO)
101 W. Read St., Suite 825
Baltimore, MD 21201
(800) 638-6252 (Baltimore area only)
(301) 333-2437 (Hotline)
(800) 553-3140 (TTY)
(301) 685-1180

MASSACHUSETTS

AIDS Action Committee
131 Clarendon St.
Boston, MA 02116
AIDS Action Line:
(800) 235-2331 (U.S. toll-free)
(617) 437-6200 (main number)
(617) 536-7733

NEW YORK

Gay Men's Health Crisis, Inc.
129 W. 20th St.
New York, NY 10011
(212) 807-6655 (English/Spanish)
(212) 645-7470 (TDD)

Hispanic AIDS Forum Hotline
121 6th Ave., Room 505
New York, NY 10013
(212) 966-6662 (English/Spanish)

NORTH CAROLINA

American Social Health Association
P.O. Box 13827
Research Triangle Park, NC 27709
(919) 361-2742

WASHINGTON, DC

American Red Cross
HIV/AIDS Education Office
1709 New York Ave. NW, Suite 208
Washington, DC 20006
(202) 662-1577
or contact local Red Cross

National AIDS Network
2033 M St. NW, Suite 800
Washington, DC 20036
(202) 293-2437
Fax: (202) 293-2587

U.S. Public Health Service
Office of Communication
News Division
Hubert H. Humphrey Building
Room 717-H
200 Independence Ave., SW
Washington, DC 20201
(202) 245-6867

AIDS Information Clearinghouse
(800) 458-5231

LESSON
4

INFORMATION VERIFICATION

Objective

Students will be able to analyze the credibility and accuracy of information about HIV.

Time

One class period.

Overview

Many students will feel their opinions are facts. When myths or misinformation are believed, it is very hard to promote factual information. It is important for the teacher to set up an environment that promotes sound factual education.

In this lesson, the students back up their brainstorm statements from Lesson 1 with facts from credible resources, using critical thinking skills, and find answers for generated research questions. Misinformation is replaced with substantiated facts.

Instructional Strategies

Cooperative learning, critical thinking, research.

Teacher Materials and Preparation

HAVE:

- ✓ Brainstorm list of statements and generated questions from Lesson 1 displayed in class.
- ✓ Sheets of newsprint and markers.
- ✓ Resources on HIV and AIDS: books, newspapers, magazines, student publications, pamphlets and experts, as suggested in Lesson 3.

COPY:

- ✓ **Information Verification Form**, enough copies for each student to have three to five forms.

Procedure

■ Tell the students they will continue to look for factual material to prove their brainstorm statements and to answer their research questions. They will read material to find answers.When they find an answer they will fill out an **Information Verification Form** by writing the question on the question line and the answer on the lines provided. Tell them to fill in the required information on the resource they use. Explain that bibliographical information is required in research so that others can locate and check your information and to prove the credibility of your information.

Give each student a form. Take them through the process step by step using one of their questions and one of the resources available to them. As the "Research Questions" are answered, place a star by each question as a signal that it has been answered.

Explain to students that this project is like playing the TV quiz show "Jeopardy" — "Here is an answer, now what is the question?" In some cases students will find good information for which no question is on the list of research questions. They may then develop a question for which the material provides an answer. Also have them use materials to prove or disprove statements from the brainstorm list of statements. The question then becomes, "Is it true that...?"

■ Arrange students into cooperative learning groups of three to four. Assign roles of one or two readers, a recorder and a reporter. Give each group some of the research materials. Have students find as many answers as possible in the remaining class time.

Note: For younger or less advanced students, take them through each step as a full class as described earlier.

Place verification forms near the list of brainstorm statements and generated questions. As students answer questions and prove statements, have them star questions and statements with colored felt pens on the displayed lists.

If a statement from the brainstorm list is proven to be untrue, have students write with felt pen on statement, "UNTRUE."

Have sheets of large paper ready for additional questions. As students learn more about HIV and AIDS, they will naturally know to ask more questions.

■ Conclude lesson by having student cooperative groups report their findings to the class. Focus on unanswered questions. Discuss how these questions will be answered. Explain to students that scientific research often starts with someone's unanswered questions. This class's study of HIV may end with several unanswered and unanswerable questions.

Evaluation

Check verification forms to determine student success in analyzing information about HIV and AIDS.

Have students write "I learned" statements and rank themselves on their level of cooperation and participation.

Follow-up Extension

If the teacher chooses to make individual research assignments, the verification form can become a very structured assignment.

STUDENT

Information Verification Form

NAME____________________
DATE____________________

Source: Title____

Author______________________ Publisher_________________________

Date________________ Vol._______ Pages__________

Circle One: Book Encyclopedia Magazine Newspaper

Pamphlet Resource Person Other

QUESTION:____

ANSWER:____

Information Verification Form

NAME____________________
DATE____________________

Source: Title____

Author______________________ Publisher_________________________

Date________________ Vol._______ Pages__________

Circle One: Book Encyclopedia Magazine Newspaper

Pamphlet Resource Person Other

QUESTION:____

ANSWER:____

LESSON

5

EPIDEMICS: A PEEK AT THE PAST

Objective

Students will be able to demonstrate the impact of a specific epidemic on individuals and society.

Time

One class period.

Overview

It is important for students to understand that HIV infection is an epidemic that is rapidly spreading throughout the United States and other countries. This lesson will provide the background information necessary for a general understanding of epidemics: what they are, how they develop and how they are stopped.

Students listen to a role-play script depicting an interview between an announcer and an epidemiologist who will give them some general information about epidemics. In small groups, students study a historical epidemic, develop a skit and give a dramatic presentation to the class.

Instructional Strategies

Brainstorming, cooperative learning groups, dramatic presentations, script writing.

Teacher Material and Preparation

HAVE:

✓ A world map posted on the wall so groups can indicate the world location of their epidemics.

COPY:

✓ **Epidemic Fact Sheets,** enough copies so that each group member has a copy of the group's assigned epidemic.

MAKE:

✓ Build a time machine out of cardboard or other inexpensive materials to use in the class simulations of going back in time (optional).

PREPARE:

✓ **DJ's Script**. Select a student volunteer prior to the lesson so he or she can practice reading the script.

REVIEW:

✓ **Epidemic Fact Sheets** to familiarize yourself with the information provided before you lead the summary discussions following presentations.

Procedure

■ Begin the lesson by having the preselected volunteer assist in reading the script. Read the announcer's part and have the student read the epidemiologist (a person who studies the spread of disease). Following the reading of the script, call on students to share something they learned about epidemics or questions that may have been raised.

■ Assign students to six cooperative learning groups, giving each group a specific epidemic to study. Distribute an **Epidemic Fact Sheet** about the assigned disease to each group member. Tell students their task is to read the background information and develop a brief television broadcast concerning their epidemic. They should simulate the time and place of the epidemic, using reporters, eyewitnesses, experts, victims and anyone else who would make the broadcast seem authentic and interesting. They should use the world map to show the audience the location of their epidemic.

Allow the groups 20-25 minutes to develop their skits. When all groups are ready, assume the role of announcer once again, either reading from **DJ's Script** or improvising. Call on the groups to give their presentations.

■ When groups have finished their presentations, have students brainstorm what they have learned about epidemics, including epidemics in general and facts about specific epidemics. Challenge them to apply what they have learned to the HIV epidemic.

Evaluation

Observe student performance for the ability to demonstrate an understanding of the impact of specific epidemics.

Observe student responses in the brainstorming session to check for more general conceptualization of epidemics.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Have students contact a local epidemiologist or public health nurse to find out more about epidemics in their area.

Discuss related terms such as *pandemic* and *endemic.*

DJ's SCRIPT

DJ: Welcome to KEPI's special broadcast, "Epidemics: A Peek at the Past." Before we begin our journey back through time, I'd like to introduce Dr. Ima D. Zees, noted expert on diseases and epidemics. Welcome, Dr. Zees.

Dr.: Thank you very much. It's a pleasure to be here.

DJ: Now, Dr. Zees, just how exactly do you define an epidemic?

Dr.: An epidemic is an illness or disease that occurs in higher numbers than is expected.

DJ: I see. Does everyone become infected in an epidemic?

Dr.: No.

DJ: That's very interesting. Are all epidemics fatal?

Dr.: Generally, epidemics are fatal because they deal with a disease that kills people.

DJ: And how are epidemics stopped?

Dr.: Well, that depends on the disease. Polio was stopped when a vaccine was discovered. Some epidemics can be prevented by cleanliness and good sanitation. So far, there's no stop to the AIDS epidemic.

DJ: Well, thanks so much for being with us today, Dr. Ima D. Zees. We'll return to Part 2 of "Epidemics: A Peek at the Past" following this brief message.

(Assign students to their groups on specific epidemics and give them 25-30 minutes to complete their skits.)

DJ: And now I'll turn on the KEPI time machine to take us to our first blast in the past.

(The first group, in chronological order, will give their presentation. Repeat this sequence for all six groups.)

DJ: Thank you all for joining us today on KEPI for today's special broadcast on epidemics.

EPIDEMIC FACT SHEET 1

The Bubonic Plague in Europe

Epidemics were common in the Middle Ages, occurring about every 25 years or so. The worst plague ever recorded in Europe was The Great Plague of 1348-1349. This was also called "The Black Death." There was a very high death rate. About 25 million people died, which was about one-fourth of the total population.

Everything stopped during the epidemic. Trade stopped, people produced very little food, the courts stopped meeting and there was no policing of crimes.

Bubonic plague was easily transmitted. People contracted it from the bites of fleas who had gotten the infection from infected rats. It was a very painful disease that killed people in one to three days from the time they were bitten by the flea.

Living conditions in the cities were crowded and unsanitary; rats and fleas flourished. Many people were infected and the disease spread rapidly. Almost everyone who got the disease died. There was no treatment and no cure.

People did not know how the disease was caused. They were afraid of catching it from those already infected, so the sick were often abandoned to die alone.

No one wanted the disease. They prayed to God to protect them. Some worshiped the devil and wore amulets or charms. Some tried to ward off the disease by chanting incantations or using a magic word, "Abracadabra." It was hoped that burning incense or leaves or burning things that filled the air with foul smells was a preventative. Some people stopped bathing, others stopped having sex. Some people believed the night air was poisonous. Some doctors recommended drinking or washing with goat urine.

In many communities in Europe, Jews were blamed for causing or deliberately spreading the plague. They were accused of poisoning wells and planning the destruction of the Christian population, even though Jews were dying of the plague as much as Christians. Mass persecutions of Jews were common. Hundreds of thousands of Jews were massacred throughout Europe during these times. When the plague ended, so did the persecutions.

Adapted from *Teaching AIDS,* 3rd ed., ETR Associates, 1992, Santa Cruz, California.

EPIDEMIC FACT SHEET 2

The Bubonic Plague in San Francisco, California

Bubonic plague appeared in San Francisco in 1900. A Chinese man was the first to be diagnosed with the disease. Most other cases were among the Chinese. The San Francisco Board of Health believed Chinatown was a source of the disease because of "unwholesome odors."

The Chinese were blamed for the disease, and the city, state and federal authorities took action; Chinatown residents were placed in quarantine.

No changes were made in the poverty or overcrowded conditions in Chinatown. The city did not even provide health care to the quarantined people of Chinatown.

Chinese and Japanese could not leave California without a federally issued medical certificate. Detention camps for San Francisco's 14,000 Chinese residents began to be prepared.

The State Board of Health recommended that Chinatown be demolished and saturated with chloride of lime and carbolic acid. The 1906 earthquake destroyed Chinatown before the plan could be carried out.

Another outbreak of the plague occurred in 1907 in San Francisco. This time few of the sick were Chinese, most were White. The Board of Health carried out a citywide program for killing infected rats and their disease-bearing fleas. The disease was stopped.

Adapted from *Teaching AIDS,* 3rd ed., ETR Associates, 1992, Santa Cruz, California.

EPIDEMIC FACT SHEET 3

United States—STDs in Teenagers

Sexually transmitted diseases, also called STD, or sometimes VD, are usually passed from person to person during intimate sexual contact. Currently, teenagers (and young adults) are at risk in an epidemic of STD.

One in seven teenagers currently has an STD. Eighty-five percent of all reported cases of STDs are in people 15-30 years old.

The most common of the sexually transmitted diseases is gonorrhea. It is estimated that well over 1,000,000 people in the United States have gonorrhea today. Gonorrhea can cause death in rare cases. It can cause sterility (not being able to have children) in both males and females. If a mother has gonorrhea when she gives birth, it may get into her baby's eyes and cause an infection that could lead to blindness.

Gonorrhea can be treated with penicillin. The symptoms are different in males and females. In males, urethritis often occurs so a male feels pain inside his penis when he urinates. He may also have a watery dripping from his penis that becomes white to green-yellow in color. About 80 percent of females have no symptoms. A female can have a discharge from her vagina that may spread bacteria into her urinary tract. Like the male, she may have a burning feeling when she urinates.

Doctors and health clinics can diagnose gonorrhea with a simple laboratory test. Treatment must begin immediately if gonorrhea is diagnosed. Sexual partners need to be informed so they can be tested and treated.

Laws regarding medical treatment of STD vary from state to state. In California, anyone 13 or older can be confidentially diagnosed and treated for STD without parental consent.

STD can be prevented by abstaining (not having) from sex altogether. It is important to abstain from sex when one partner is infected with an STD. Limiting the number of partners a person has sex with also decreases a person's risk. Proper use of a condom (rubber) can prevent transmission of gonorrhea and other STD.

Adapted from *Teaching AIDS*, 3rd ed., ETR Associates, 1992, Santa Cruz, California.

EPIDEMIC FACT SHEET 4

Yellow Fever

Yellow fever has caused many deaths throughout recorded history. Some of the recorded epidemics are:

1699 - In Charleston, South Carolina, and in Philadelphia nearly one-sixth of the population dies.
1741 - 10,000 die in Cadiz, Spain.
1793 - During the worst epidemic in any U.S. city up to this time, 5,000 die in Philadelphia.
1798 - in New York City 2,086 deaths.
1800 - 80,000 deaths in Spain.
1802 - 29,000 of Napoleon's soldiers die in the Dominican Republic.
1810 - 25,000 deaths in Spain.

Yellow fever is a violent disease caused by a virus transmitted by the bite of a mosquito. It has a sudden onset with fever, headache, backache, exhaustion of the body, nausea and vomiting. The death rate can be as low as 5 percent with lifetime immunity for survivors. During epidemics the death rate can be as high as 50 percent.

In 1902, Army Surgeon W.C. Gorgas was able to control an epidemic of yellow fever in Havana, Cuba, by killing mosquitoes and destroying the breeding area. He was able to do the same in Panama two years later. Construction of the Panama Canal was then started.

Today immunization is available for people going into areas of possible infection. Vaccination will last up to 17 years. There have been only a few cases in the Americas since 1942 (some in Trinidad, West Indies, in 1954). Cases are still reported in parts of Africa near rain forests.

EPIDEMIC FACT SHEET 5

Smallpox

Smallpox has caused many deaths throughout recorded history. Some of the recorded epidemics and important developments in treatment are:

1616 - Kills almost all of the Indians in New England.
1667 - Spreads throughout Virginia.
1697 - Spreads to Charleston, South Carolina.
1713 - Outbreak reported in Cape Colony, South Africa.
1740 - Berlin, Germany reports an outbreak.
1800 - First vaccination in America given by the inventor to his son.
1802 - James Smith, a Maryland physician, opens a clinic that gives free smallpox vaccinations to the poor.
1853 - Vaccination against smallpox is made compulsory in England.

This serious disease is presently under control because of the worldwide use of vaccine. Though now in control, in the past the disease has caused much death and disfiguration.

This infectious and highly contagious disease is caused by a virus. The disease comes on very quickly and is accompanied by a very high fever, headache and a severe backache followed by deep eruptions on the skin. Fatality rates of 5-15 percent were generally experienced.

The disease was generally transmitted by close contact with the infected person, including contact with respiratory discharges or sores on the skin or materials contaminated by the victim. Airborne spread did not often occur. Household, school and hospital association with infected people offered great risks.

Victims were usually put into quarantine, as were all members of their family and others they had had contact with. Daily inspections of these quarantined people were made for 17 days for signs of the disease.

Permanent immunity for people who lived through the time when the disease occurred; very few people had it a second time. This was the important clue that led scientists to search for a vaccine.

EPIDEMIC FACT SHEET 6

Polio

Infantile paralysis (poliomyelitis), has been a problem since early times. Human remains from 3700 B.C. indicate the disease. Some of the recorded epidemics and important developments in treatment are:

1916 - 27,000 U.S. cases.
1943 - 1,151 deaths, thousands paralyzed.
1952 - 58,000 U.S. cases.
1954 - Dr. Jonas Salk develops vaccine.
1955 - August 12, U.S. Congress passed the Poliomyelitis Vaccination Act; enough money made available so all children could be vaccinated.
1955 - Albert Sabin develops oral vaccine.
1957 - 6,000 U.S. cases.

In 1907, poliomyelitis (polio) was confirmed to be an infectious disease by Otto Ivar Wickman (German). Several mild epidemics were noted in colonial times, but the disease was not known to the general public until 1916. During that year in New York City alone, 9,000 children were infected; of these, 2,000 died.

Polio occurred worldwide before large-scale immunization programs were carried out. During 1971-1978 a yearly average of only 15 cases was reported in the United States, 9.6 in the United Kingdom, 2.8 in Canada.

An infection that is caused by the polio virus quickly becomes severe. Symptoms range from unapparent signs to fever to paralysis and possibly death.

The virus multiplies in the alimentary tract (between mouth and anus). It invades the central nervous system and attacks motor cells, resulting in paralysis. This leaves the infected body part limp, most often the lower part of the body. Paralysis of muscles for breathing and swallowing may threaten life.

The disease is transmitted by direct contact. In a few cases, foods and other fecally contaminated materials have been discovered to be the sources of transmission. There is no reliable evidence of spread by insects or virus-contaminated sewage, and water is seldom involved. Where sanitation is good, discharge from the throat as in coughing becomes the major mode of transmission. The virus is more easily detectable for a longer period in feces than in throat secretions.

LESSON
6

CHARACTERISTICS OF DISEASES

Objective

Students will be able to differentiate among various characteristics of disease.

Time

One class period.

Overview

To meaningfully understand the implications of AIDS as a disease, students must have some background on the nature of diseases in general. They should be able to compare the similarities and differences of diseases, and make predictions and interpretations about those diseases.

In this lesson, students are introduced to communicable disease through a discussion of chickenpox. After the teacher demonstrates how to outline the facts about chickenpox on a wall chart, small groups of students study other diseases, report back to the class and record information on a master chart.

Instructional Strategies

Brainstorming, cooperative learning groups, oral presentations, research.

Teacher Materials and Preparation

COPY:

✓ **Description of Diseases** worksheet, one for each student.
✓ **Disease Questions** worksheet, one for each student.

PREPARE:

✓ A blank wall chart using the **Sample Wall Chart** as a model. The chart should be made of butcher paper using large felt pens so it can be seen from the back of the room. There are nine rows on the chart—one for chickenpox and eight for the other diseases to be studied.

REVIEW

✓ **Communicable Disease Overview** and the **Sample Wall Chart**, including the characteristics of chickenpox.

Procedure

■ Ask students to indicate by a show of hands if they have ever had chickenpox. Call on individual students to share their experiences. Guide them into sharing what it was like, how they got it, how long it lasted, how they knew they had it and who else in their family also got it. As students share general information, translate it into a specific category on the chart. For example, if a student says that his younger brothers both came down with chickenpox after he did, explain that the brothers caught the disease because the older brother *transmitted* it to them.

Using chickenpox as your example, go through each category, having students suggest the appropriate information for each box. In many categories, student guesses will be inaccurate and the teacher will need to supply correct information. Depending on the level of the class, discuss the definitions for each category.

When the chart has been filled out for chickenpox, tell students the categories can be used to better understand any disease. Explain that they will be working in small groups to become informed about one specific disease. Each group will receive a paragraph containing information about their assigned disease. The groups will be responsible for sharing that information with the class.

■ Divide the class into eight cooperative groups of three or four each. Distribute one copy of the **Description of Diseases** handout and one copy of the **Disease Questions** worksheet to each student. Assign one disease to each group. Ask group members to read the questions on the worksheet to each other before reading the paragraph on their assigned disease. Tell groups to choose one member to read the disease information on the handout aloud to the other group members. After the paragraph is read, group members should answer the questions on the worksheet together, making sure each member has written down the correct answer.

■ When all groups have completed these tasks, have them distribute questions among members for mini-reports to the class on their diseases. As each group completes its report, the members should fill in the wall chart for their disease.

■ Upon completion of all group reports, ask students to summarize what they have learned in this lesson. This should be a brainstorming session in which students are encouraged to make generalizations about disease based on specific information about particular diseases.

Evaluation

Collect worksheets and observe participation during the brainstorming session to check for understanding of the characteristics of diseases studied.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Students can use survey techniques to take a census on communicable diseases, surveying the incidence of cold and flu in the classroom or school. Math-related activities can be introduced by displaying and interpreting the results.

DISEASE QUESTIONS WORKSHEET

Group Members' Names:

____________________ ____________________

____________________ ____________________

NAME OF DISEASE: ____________________

1. What is the **infectious agent** (cause) for this disease? ____________________

2. What are some of the **symptoms** of this disease? ____________________

3. How is this disease **transmitted** to people? ____________________

4. What are some of the **effects** of this disease? ____________________

STUDENT

5. How can this disease be **treated**? ____________________

____

____

6. How can this disease be **prevented**? ____________________

____

____

DESCRIPTION OF DISEASES

Dysentery

Dysentery is a disease caused by bacteria. Common symptoms of dysentery are diarrhea and stomach pains. The bacteria can be passed to people through food, water or flies. The effects of the disease range from mild symptoms to death caused either by a lack of water (dehydration) or by bacterial poisoning. Dysentery can be treated with antibiotics (medicine), along with rest and a heavy liquid diet. It can be prevented by cleanliness and careful storage of food and water.

Leprosy

Leprosy is a disease caused by bacteria. A common symptom of leprosy is sores on the skin. While the transmission of the disease is not completely understood, it is known that continued close contact can transmit the disease.

The effects of the disease include deformities to body extremities (hands and feet), tissue deterioration and in some cases, death. Leprosy is treated with drugs (sulfones) and those infected are usually isolated. There is no known way to prevent leprosy.

Typhoid Fever

Typhoid fever is a disease caused by bacteria. Common symptoms include fever, being sick to the stomach and pneumonia. The disease can be transmitted through food or water that has been contaminated by urine or feces. Some of the long-range effects of the disease include deterioration of the heart, lungs, liver, skeletal and muscular systems, and in some cases, death. Typhoid fever can be treated with modern drugs. It can be prevented by cleanliness, isolating the infectious agent and a short-term vaccine.

Polio

Polio is a disease caused by a virus. Common symptoms are headaches, neck and back pains, fever, vomiting, stomach pains and constant tiredness. Droplets can be breathed in through the nose or swallowed through the mouth. Some of the effects are muscular deformity, partial or total paralysis or loss of normal breathing ability. Polio is treated with total bed rest and pain relievers. It can be prevented by vaccination or by isolation of persons infected.

Rubella

Rubella is a disease caused by a virus. Some common symptoms are fever, coughing and a rash. It can be transmitted by breathing in droplets. Some of the effects are ear infections, pneumonia and even death. Babies born to mothers who had rubella during pregnancy can be born with birth defects. Rubella can be treated with rest, aspirin* and liquids. It can be prevented by vaccination or isolation of persons infected. (*Note: Aspirin is not recommended for children and teenagers. An aspirin substitute should be used.)

Bubonic Plague

Bubonic plague is a disease caused by bacteria. This disease was called the "Black Death" in the Middle Ages when it killed millions of people throughout the world. It is still a problem in the world today. Some common symptoms are fever, coughing, being sick to the stomach and large sores. It can be transmitted by flea bites or in the feces of fleas that are carried by rats or other rodents. Some of the effects are scarring of the skin, deformities, weakness of vital organs (heart and lungs) and in some cases, death. Bubonic plague can be treated with antibiotics (medicine). It can be prevented by controlling the rat population and cleanliness and through vaccinations.

Malaria

Malaria is a disease caused by protozoa. Common symptoms are chills, fever, sweats and weakness. It is transmitted through mosquito bites. Some of the effects are damage to the vital organs (heart and lungs) and reduction of red blood cells. Malaria can be treated with modern drugs (quinine, atabrine and primaquine). It can be prevented by destroying mosquitoes and their nesting places.

Tuberculosis

Tuberculosis, commonly known as TB, is caused by bacteria. Common symptoms are a dry cough and rise in body temperature. It can be transmitted by droplets inhaled in air or dust and is sometimes present in milk or food. TB can spread quickly among people who live in overcrowded conditions. Some effects are destruction of lung tissue, skin and joints. Tuberculosis can be treated with rest and drugs. If it is discovered early, it can be cured.

SAMPLE WALL CHART

DISEASE	INFECTIOUS AGENT	SYMPTOMS	TRANSMISSION
CHICKENPOX (Example)	virus	slight fever, tiredness, loss of appetite, blisters on the skin	airborne droplets, indirect contact with nose and throat secretions, contact with fluid in blister
DYSENTERY			
LEPROSY			
TYPHOID FEVER			
POLIO			
MEASLES			
BUBONIC PLAGUE			
MALARIA			
TUBERCULOSIS			

SAMPLE WALL CHART Continued

EFFECTS	TREATMENT	PREVENTION	DISEASE
severe itching	rest	isolation no vaccine	**CHICKENPOX (Example)**
			DYSENTERY
			LEPROSY
			TYPHOID FEVER
			POLIO
			MEASLES
			BUBONIC PLAGUE
			MALARIA
			TUBERCULOSIS

LESSON 7

DISEASES: CAUSES AND TRANSMISSION

Objective

Students will be able to describe the causes, symptoms, transmission, effects, treatment and prevention of some communicable diseases.

Time

One class period.

Overview

In this lesson, students build a chart about diseases to reinforce the concepts of disease, cause, symptoms, transmission, effects, treatment and prevention before moving on to content about sexually transmitted diseases (STDs).

Students look at a chart of communicable diseases and the teacher leads a critical thinking discussion. After working in groups to summarize the discussion, students identify "Rules for Prevention of Many Communicable Diseases" to generalize later to STDs.

Instructional Strategies

Critical thinking discussion, cooperative learning groups.

Teacher Materials and Preparation

HAVE:

✓ Communicable Disease wall chart, completed in Lesson 6.
✓ Large sheet of butcher paper and colored markers.

COPY:

✓ **My Health Inventory** worksheet, one for each student.
✓ **Communicable Disease Overview,** one for each student.
✓ **Drawing Conclusions—Communicable Disease** worksheet, one for each student.

REVIEW:

✓ **My Health Inventory—Teacher Information Sheet**.

Procedure

■ Introduce **My Health Inventory** to students by asking them what they do to stay healthy. Have them read each statement carefully and answer each statement as honestly as possible by putting a mark in the box next to the statements that apply to them. Allow enough time for students to complete the inventory. As necessary, read the statements aloud or call on students to read. When students have finished the inventory, use the **My Health Inventory** ***Teacher Background Information*** to conduct a brief discussion of each category. Conclude by emphasizing the importance of *prevention* in stopping the spread of communicable disease.

■ Distribute the **Communicable Disease Overview**. Refer to the wall chart and remind students that some diseases are communicable and others are not. Explain that since the class is studying HIV infection, which is a communicable disease, the students will study more about communicable diseases. Also point out that science and medicine still have many unanswered questions. Doctors are still looking for solutions to many health problems.

Have students move close to the wall chart. Point out each disease, leading students horizontally across the chart to note cause, symptoms, transmission, effects, treatment and prevention.

Use the following questions while focusing on the vertical columns on the wall chart. These questions are designed to help students make important generalizations about the concept of communicable disease.

- Name some infectious agents that cause disease.
- What are some common symptoms of diseases?
- How are diseases transmitted?
- Do you see any common transmission by viruses? by bacteria?
- Do diseases cause death? Which ones?
- Do diseases leave permanent damage? Which ones?
- Which disease is the least harmful? Why do you say that?
- Which disease is the most harmful? Why do you say that?
- Do any of these diseases have the same treatment?
- What are some of the common treatments?
- What treatments apply to only one disease?
- How are diseases prevented from being transmitted?
- Which diseases could be associated with cleanliness?
- Which diseases are more likely to occur in places where people live in overcrowded conditions?
- Can you make a generalization about preventing disease transmission?

Continue questioning in a logical progression, allowing several answers for each of the questions. Allow time for students to formulate answers. Ask students to make comparisons to see if virus-caused diseases have similar symptoms, modes of transmission, effects, treatment and prevention.

■ When discussion is complete, give each student the **Drawing Conclusions—Communicable Disease** worksheet. Have students work in groups. Encourage them to fill out their own worksheet as far as possible and then check with group members.

■ Conclude the lesson by asking students to share their ideas about "Rules for Prevention of Many Communicable Diseases." Write the rules on a large sheet of paper to display in the room during the rest of the unit.

Evaluation

Assess student responses on the **My Health Inventory** and **Drawing Conclusions—Communicable Disease** worksheets, to observe student ability to describe cause and transmission of disease.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Have students work in pairs to brainstorm a list of diseases. Then combine pairs in groups of four to share lists. Allow students to choose a disease and conduct a library search on it to add information to the Communicable Disease wall chart.

MY HEALTH INVENTORY

Teacher Background Information

The **My Health Inventory** worksheet is designed to stimulate thinking and discussion before looking at communicable diseases and their causes. The worksheet could be used as an introductory activity in a comprehensive health program. While conducting an HIV education program, it is important to remember that a lifestyle based on healthy choices is a key to preventing HIV infection. Use this discussion to establish that basic concept.

The following paragraphs highlight points for the teacher to stress.

Diet/Nutrition

While a whole unit is required to address this topic appropriately, emphasize that good nutrition helps provide for a healthy immune system. Be alert to students with beginning eating disorders. Greater and greater numbers of young girls entering adolescence are on perpetual diets so they will look as thin as models. Many young boys are also getting into dieting—both from a vanity standpoint and from a sports perspective, as in qualifying for a lighter weight class in sports such as wrestling. Most health experts feel that only grossly overweight children should be on diets and then only under the supervision of a physician. This is a time when it is normal and healthy for children to gain weight.

Sleep

Children entering adolescence usually need 8-10 hours of sleep each night to be healthy. Some children at this age experience insomnia. Be aware that such sleep disorders may be an indication of high stress or substance abuse.

Hygiene

Cleanliness is disease prevention. Washing hands appropriately will prevent the spread of many kinds of diseases. When students look at the disease chart and see the instances of disease transmission that occur through fecal contamination, the teacher can connect cleanliness to the prevention of disease.

Fitness

More is being learned all the time about the relationship of exercise to overall wellness. A comprehensive fitness program is an important part of a total health curriculum.

Risk/Safety

Accidents are the number one killer of children. High-risk behavior brings people into contact with life-threatening situations. HIV infection is life threatening. Riding a bicycle without a helmet or without a light at night or riding double are all life threatening. Students need to understand the difference between healthy excitement and life-threatening behavior.

Drugs/Alcohol

Health educators take the position that there is no responsible use of alcohol or drugs, other than medicine, for children. Children who begin to use drugs and/or alcohol before the age of 15 are at much greater risk for addiction than those who wait until they are of legal age for experimentation and use. Substance use and abuse lowers the functioning of the immune system.

The use of injection drugs in particular puts the individual at risk for HIV infection, in addition to drug addiction. The risk is not limited to injection drug use. Any sharing of needles, including those used for ear piercing, tattooing and injecting steroids or vitamins, is high risk.

Stress

Teen stress is an important concern for society. Depression, suicide, sleeping disorders, eating disorders, substance abuse, academic pressure and family problems can be indicators of teen stress. Having one or two good friends to talk to is one of the healthiest things children and adults can have in life. Teachers can include the making and keeping of friends in a health education program. In the case of depression that can lead to suicide, a strong exercise program and a friend are both important strategies. Both stress and depression affect the functioning of the immune system.

Prevention

Most states have requirements that students entering school must have completed immunizations before registration can take place. This helps to prevent the spread of certain diseases in school populations. Regular visits to the doctor and dentist can also help identify preventable conditions. Children who do not have access to private physicians and dentists may receive check-ups at local health clinics. People need to know what personal conditions are symptoms of disease and where to get help if they appear. Early treatment of STDs will prevent their spread and in some cases can cure the disease.

My Health Inventory

Diet/Nutrition

____ I eat from a variety of foods, including fruits, vegetables, grains, proteins and dairy products, every day.
____ I am often on a diet to lose weight.
____ I choose candy bars and french fries over vegetables and fruit.

Sleep

____ I get about 8 hours of sleep every night.
____ I watch TV until 11 or 12 o'clock at night.
____ I often have a hard time falling asleep.
____ I hate to get up in the morning.

Hygiene

____ I wash my hands after going to the toilet.
____ I wash my hands before eating.
____ I take a bath or shower every day.
____ I change my bed and wash my clothes regularly.

Fitness

____ The only exercise I get is at school during gym.
____ I exercise regularly.
____ I know I should exercise but I prefer watching TV.

Risk Behavior

____ I buckle up every time I get in a car.
____ I want to live a long time; I don't take unnecessary chances.
____ All this talk about being safe spoils having a good time.

Drugs/Alcohol

____ I will not try drugs or alcohol during my teen years.
____ I think it is OK to drink and use drugs on special occasions.
____ It's OK to use drugs and alcohol to relax and have fun.

Stress

____ I have someone to talk to when I'm upset.
____ I often get angry and blow up.
____ Sometimes I feel so sad I would like to die.

Prevention

____ I think I have all my immunizations.
____ I have had a check-up with my doctor in the last 3 years.
____ I have been to the dentist in the last year.

COMMUNICABLE DISEASE OVERVIEW (1)

DISEASE	INFECTIOUS AGENT	SYMPTOMS	TRANSMISSION
DYSENTERY	bacteria* *some types of dysentery can be caused by a virus or a protozoa	stomach pains, diarrhea	food or water, flies
LEPROSY	bacteria	sores on the skin	unclear, prolonged close contact
TYPHOID FEVER	bacteria	fever, cough, sick to one's stomach, aching, heart failure, pneumonia	food or water contaminated by feces or urine
POLIO	virus	headaches, neck and back pains, fever, vomiting, stomach pains, tiredness	respiratory droplets ingestion, fecal contamination
RUBELLA	virus	fever, cough, rash	inhaling of droplets, contact with open sores
BUBONIC PLAGUE	bacteria	fever, cough, sick to one's stomach, large sores	from rats or other rodents by flea bites, or in feces of fleas
MALARIA	protozoa	chills, fever, sweats, weakness	saliva of the female mosquito
TUBERCULOSIS	bacteria	dry cough, rise in body temperature	droplets inhaled in air or dust, sometimes present in milk or food

STUDENT

COMMUNICABLE DISEASE OVERVIEW (2)

EFFECTS	TREATMENT	PREVENTION	DISEASE
ranges from mild attack to death by lack of water or bacterial poisoning	antibiotics (medicine), rest, heavy liquid diet	cleanliness, careful storage of food and water	**DYSENTERY**
deformities of extremities, tissue deterioration, untreated leads to death	isolation, sulfones (medicine)	unknown	**LEPROSY**
deterioration of heart, lungs, liver, skeletal and muscular systems, death	modern drugs	cleanliness, isolation of carrier, short-term vaccine	**TYPHOID FEVER**
muscular deformity, partial or total paralysis, loss of normal breathing ability	total bed rest, analgesics (medicine)	vaccination, isolation	**POLIO**
ear infections, pneumonia, death, birth defects	rest, aspirin, liquids	vaccination, isolation	**RUBELLA**
scarring of the skin, deformities, weakening of vital organs, death	antibiotics (medicine)	rat control, sanitation, limited vaccine	**BUBONIC PLAGUE**
vital organ damage, reduction of red blood cells	modern drugs (quinine, atabrine, primaquine)	destroying mosquitoes and their nesting places	**MALARIA**
destruction of lung tissue, skin, joints	rest, drugs	early detection prevents further damage	**TUBERCULOSIS**

STUDENT

Drawing Conclusions—Communicable Disease

Name______________________________

Date______________________________

1. List some infectious agents that cause disease.

2. What are some common symptoms of diseases?

3. List some ways organisms that cause disease (infectious agents) are transmitted.

4. List some ways diseases are prevented from being transmitted.

5. List some ways diseases are treated.

6. Which diseases are the least and most harmful and why?

7. Which diseases are associated with lack of cleanliness?

8. Make a good health rule for the prevention of many communicable diseases.

Other important rules are:

Drawing Conclusions—Communicable Disease

Key

1. List some infectious agents that cause disease.
   viruses, bacteria, fungi and protozoa

2. What are some common symptoms of diseases?
   fever, cough, headaches, stomach pains, diarrhea, rash or sores, vomiting

3. List some ways organisms that cause disease (infectious agents) are transmitted.
   air, water or food, direct contact, bites

4. List some ways diseases are prevented from being transmitted.
   cleanliness, vaccination, avoiding contaminated food and water, insect and rodent control

5. List some ways diseases are treated.
   antibiotics, rest, aspirin, quinine, flagyl

6. Which diseases are the least and most harmful and why?
   Answers will vary. Least harmful diseases are those such as chickenpox and common cold. Most harmful are those that cause death or permanent damage to the body.

7. Which diseases are associated with lack of cleanliness?
   Answers will vary but may include dysentery, typhoid fever.

8. Make a good health rule for the prevention of many communicable diseases.
   Answers will vary. Kill the pathogens, sanitary sewage disposal, boil suspect water, avoid using others' utensils, clean and treat wounds, keep hands clean and away from mouth, get inoculations, rest, good food, fitness, feel good about yourself, avoid alcohol and other drugs.

LESSON
8

A COMPARISON OF STD

Objective

Students will be able to explain characteristics of sexually transmitted diseases, including HIV infection.

Time

One class period.

Overview

The structure and process used in this lesson are similar to those used in Lesson 6. Rather than focusing on diseases in general, this lesson looks at HIV and other sexually transmitted disease (STD). It reviews and extends the concepts developed in Lesson 6.

Once again, students use a master wall chart to record information they have learned about one sexually transmitted disease. After studying a disease, answering questions about the disease and sharing with the class, students will complete the wall chart.

Instructional Strategies

Brainstorming, cooperative learning groups, oral presentations, research.

Teacher Materials and Preparation

COPY:

- ✓ **Sexually Transmitted Disease Overview**, one for each student.
- ✓ **Description of Sexually Transmitted Disease** handout, one for each student.
- ✓ **STD Questions** worksheet, one for each student.

PREPARE:

- ✓ Construct a blank wall chart using the **Sample Wall Chart** as a model. The chart should be made of butcher paper using large felt pens so it can be seen from the back of the room.

REVIEW:

- ✓ **Sexually Transmitted Disease Overview**, including both content and categories.

Procedure

■ Explain to students that, instead of studying general diseases, this lesson focuses on sexually transmitted diseases (STD). Remind students about the discussion of chicken pox. If Lesson 6 was not studied, use the chickenpox example suggested there as an introduction to this lesson.

Tell students they will be working in small groups to become informed about one specific sexually transmitted disease. Explain that each group will receive a paragraph containing information about its assigned disease. Groups will be responsible for sharing that information with the class.

■ Divide the class into eight cooperative groups of three or four each. Distribute one copy of the **Description of Sexually Transmitted Disease** handout and one copy of the **STD Questions** worksheet to each student. Ask group members to read the questions on the worksheet to each other before reading the paragraph on their assigned disease. Have groups choose one member to read the disease information on the handout aloud to the other group members. After the paragraph is read, group members should answer the questions on the worksheet together, making sure each member has written down the correct answer.

- When all groups have completed these tasks, have them distribute questions among members for mini-reports to the class on their diseases. As each group completes its report, the members should fill in the wall chart for their disease.

- Upon completion of all group reports, ask students to summarize what they have learned in this lesson. This should be a brainstorming session in which students are encouraged to make generalizations about sexually transmitted diseases based on the information presented. Distribute one copy of the **Sexually Transmitted Disease Overview** to each student to use for future reference.

Evaluation

Assess student responses on worksheets and participation during the brainstorming session to check for understanding of sexually transmitted diseases.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Invite a guest speaker from the local health department to give an overview of sexually transmitted disease and explain the role of the health department in preventing the spread of STD.

DESCRIPTION OF SEXUALLY TRANSMITTED DISEASES

HIV

HIV is the virus that causes AIDS. It attacks and weakens the immune system. A weak immune system can't protect the body from disease and infection.

HIV is a disease with many stages. People can have HIV for years without getting sick. They may look and feel healthy. They may not even know they are infected. But people with HIV can pass the virus to their sex partners or to someone they share a needle with. A pregnant woman with HIV can pass the virus to her fetus.

Many of the symptoms of HIV infection are also symptoms of minor illnesses or infections. But with HIV, the symptoms either don't go away or keep coming back. These symptoms include unexplained weight loss or tiredness, fever and night sweats, diarrhea, swollen glands, unexplained dry cough, white spots or unusual sores on the tongue or mouth.

AIDS is the stage of HIV disease when a person's immune system gets very weak. When this happens, other diseases and infections can enter the body. These diseases include some rare cancers and pneumonia. There is no known cure for HIV infection, but early treatment can delay the start of symptoms.

Chlamydia

Chlamydia is a sexually transmitted disease caused by bacteria. The common symptoms of chlamydia include an abnormal discharge from the penis or vagina, a burning sensation when urinating and for women, bleeding between periods. Some people have no symptoms. The bacteria can be passed from person to person during sexual contact, and babies may get it from their mothers during birth.

Some of the effects of chlamydia are severe damage to the reproductive organs, infertility in women and sterility in men (not able to have children). Chlamydia can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity (not having sexual intercourse), or if sexually active, by knowing your partner does not have the bacteria and by using condoms with foam or contraceptive jelly.

Genital Warts

Genital warts are a sexually transmitted disease caused by a virus. The common symptoms are small, bumpy warts on the sex organs or anus. They are transmitted through skin-to-skin contact with genital warts. The virus can be passed from mother to baby during birth and can cause breathing problems in the newborn. Genital warts can grow larger, spread to more areas and become more serious. They can be treated with chemicals or removed by burning, freezing, lasers or minor surgery.

Genital warts can be prevented by abstaining from sexual activity (not having sexual intercourse), or if sexually active, by knowing your partner does not have the virus and by checking for the presence of warts. Washing exposed areas with soap and water before and after contact will also help. Using condoms and foam or contraceptive jelly can also help prevent exposure.

Gonorrhea

Gonorrhea is a sexually transmitted disease caused by bacteria. The common symptoms include abnormal discharge (pus) from the penis or vagina, a burning sensation when urinating and in women, stomach pains. Some men and most women may have no outer symptoms. The bacteria can be transmitted from person to person through sexual contact. Babies can get it from their mothers during birth.

Some of the effects of gonorrhea are severe damage to the reproductive organs, infertility in women and sterility in men (not able to have children), heart trouble, skin disease and arthritis.

Gonorrhea can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity (not having sexual intercourse), or if sexually active, by knowing your partner does not have the bacteria, washing exposed areas before and after contact and using condoms and contraceptive foam or jelly.

Herpes

Herpes is a sexually transmitted disease caused by a virus. Common symptoms include small, painful blisters—usually on the sex organs—and a flu-like feeling. Some people have no symptoms. Herpes is transmitted during sexual contact or by direct contact with a herpes sore. Babies can get it from their mothers during birth.

The effects include mild to severe attacks of painful sores. There is no known cure for herpes, but some drugs are used to reduce symptoms. It can be prevented by avoiding contact with herpes sores, abstaining from sexual contact or using condoms and contraceptive foam or jelly.

Pubic Lice

Pubic lice are a sexually transmitted disease caused by parasites (tiny insects or protozoa) that live in pubic hair, armpits or eyebrows. Common symptoms include itching or the appearance of lice in the hair, around the sex organs, armpits or eyebrows, and pin-sized blood spots on underwear. Pubic lice can be transmitted through close physical contact with someone who has pubic lice or by using the same clothing or bedding as someone who has them.

The effects include itching and discomfort that get worse if not treated. Pubic lice can be treated with special lotions and shampoos, and all clothing and bedding must be washed in hot water. They can be prevented by avoiding contact with someone who has lice. Sexual partners should be checked for signs of pubic lice.

Syphilis

Syphilis is a sexually transmitted disease caused by bacteria. The common symptoms in the first stage are painless, reddish-brown sores on the openings of the sex organs and possible swollen glands. In the second stage, after six weeks, a rash may appear on the body and people may feel like they have the flu. Syphilis is transmitted through sexual contact. Babies can get it from their mothers during pregnancy.

Some effects are heart disease, brain damage, blindness and death. Syphilis can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity or if sexually active, by knowing your partner does not have the bacteria, washing the sex organs before and after sexual contact and using condoms and contraceptive foam or jelly.

NGU

NGU is a sexually transmitted disease caused by bacteria. Some common symptoms in men include an abnormal discharge from the penis, itching and pain while urinating. Women may have an abnormal discharge, but usually show no symptoms. NGU is transmitted through sexual contact. Babies can get it from their mothers during birth.

Effects include a more serious infection of the reproductive organs and infertility in women and sterility in men (not able to have children). NGU can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity or if sexually active, by knowing your partner does not have the bacteria, washing the sex organs before and after contact and using condoms and contraceptive foam or jelly.

STD QUESTIONS WORKSHEET

Group Members' Names:

NAME OF DISEASE:

1. What is the **infectious agent** (cause) for this disease?
2. What are some of the **symptoms** of this disease?
3. How is this disease **transmitted** to people?
4. What are some of the **effects** of this disease?
5. How can this disease be **treated**?
6. How can this disease be **prevented**?

Sexually Transmitted Disease Overview (1)

DISEASE	INFECTIOUS AGENT	SYMPTOMS	TRANSMISSION
HIV	virus	may show no symptoms; tiredness, fever, night sweats, weight loss, swollen glands, white spots in mouth, constant diarrhea	sexual contact with an infected person, sharing infected needles, mother to baby during pregnancy
Chlamydia	bacteria	abnormal discharge from penis or vagina, burning when urinating, bleeding between periods, may show no symptoms	sexual contact, mother to baby during birth
Genital Warts	virus	small, bumpy warts on the sex organs or anus	sexual contact, skin-to-skin contact with genital warts, mother to baby during birth
Gonorrhea	bacteria	abnormal discharge from penis or vagina, burning when urinating, stomach pains in women, may show no symptoms	sexual contact, from mother to baby during birth
Herpes	virus	small, painful blisters on sex organs or mouth, flu-like feelings, may have no symptoms	sexual contact, direct contact with herpes sore, mother to baby during birth
Pubic Lice	parasites that live in pubic hair, armpits or eyebrows	itching, lice in hair, pin-sized blood spots on underwear	close physical contact, using same clothing or bedding as infected person
Syphilis	bacteria	1st Stage – reddish-brown sores on opening of sex organs, swollen glands 2nd Stage – rash, and flu-like feelings	sexual contact, mother to baby during pregnancy
NGU	bacteria	abnormal discharge from penis and pain while urinating, itching, usually no symptoms in women	sexual contact, mother to baby during birth

STUDENT

Sexually Transmitted Disease Overview (2)

EFFECTS	TREATMENT	PREVENTION	DISEASE
weakened immune system, some cancers, *pneumocystis carinii* pneumonia, damage to central nervous system, death	no known cure, treatments only for other diseases caused by weakened immune system	abstain from injection drug use and sexual activity; if sexually active, know your partner's history, use condoms and foam or jelly	**HIV**
severe damage to reproductive organs, infertility in women, sterility in men	antibiotics (medicine)	abstain from sexual contact; if sexually active, know your partner's history, use condoms and foam or jelly	**Chlamydia**
can grow larger, spread to more areas and become more serious	can be treated with chemicals, removed by burning, freezing, lasers or minor surgery	abstain from sexual contact; if sexually active, wash exposed areas before and after contact, use condoms and foam or jelly	**Genital Warts**
severe damage to reproductive organs, infertility in women, sterility in men, heart trouble, skin disease, arthritis	antibiotics (medicine)	abstain from sexual contact; if sexually active, know partner's history, use condoms and foam or jelly	**Gonorrhea**
mild to severe attacks of painful sores	no known cure, symptoms can be treated with drugs	avoid contact with herpes sores, use condoms and foam or jelly	**Herpes**
itching and discomfort will get worse	special lotions or shampoos, all clothing and bedding must be sterilized	avoid contact with infested individual	**Pubic Lice**
heart disease, brain damage, blindness, death	antibiotics (medicine)	abstain from sexual contact; if sexually active, know partner's history, use condoms and foam or jelly	**Syphilis**
serious infection of reproductive organs, infertility in women, sterility in men	antibiotics (medicine)	abstain from sexual contact; if sexually active, know your partner's history, wash before and after contact, use condoms and foam or jelly	**NGU**

SAMPLE WALL CHART

DISEASE	INFECTIOUS AGENT	SYMPTOMS	TRANSMISSION	EFFECTS	TREATMENT	PREVENTION
HIV						
Chlamydia						
Genital Warts						
Gonorrhea						
Herpes						
Pubic Lice						
Syphilis						
NGU						

LESSON
9

THE IMMUNOLOGY OF HIV

Objective

Students will be able to illustrate how HIV attacks the immune system.

Time

One class period.

Overview

This lesson provides a brief overview of the immune system and reinforces student understanding of vocabulary. The way HIV attacks helper T cells is described.

Instructional Strategies

Guided practice, mini-lecture, reading.

Teacher Materials and Preparation

HAVE:
- ✓ Colored pencils or crayons for students.

COPY:
- ✓ **Immune System Overview**, one for each student.
- ✓ **Key Vocabulary** worksheet, one for each student.
- ✓ **Helper T Cell Destruction** worksheet, one for each student.

REVIEW:
- ✓ **HIV and the Immune System *Teacher Background Information.***

Procedure

■ Introduce lesson by explaining that to understand more about how HIV attacks the immune system, it is important to know how the immune system normally reacts when a person comes in contact with a disease. Tell students that they will read a brief overview of the immune system and then define vocabulary on a worksheet.

■ Give each student a copy of the **Immune System Overview** and the **Key Vocabulary** worksheet. Have students work in cooperative groups, helping each other to read the material and find definitions for the words. Allow about 20 to 25 minutes for this activity.

■ Distribute the **Helper T Cell Destruction** worksheet and colored pencils or crayons. Instruct students to use the same color for the helper T cells and another color for HIV in all four illustrations.

Using the **HIV and the Immune System *Teacher Background Information***, lead students through a mini- lecture, guided practice exercise. They should color and label each figure in the **Helper T Cell Destruction** worksheet as the process is explained. Display completed worksheets around the room.

Evaluation

Check student worksheets and ask appropriate questions to determine if students understand how HIV attacks a normal, healthy immune system.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Have students check to see what questions from earlier lessons are addressed in this lesson. Encourage students to generate more questions for research as a result of this lesson.

HIV and the Immune System

Teacher Background Information

Introduction: The immune system is very complicated. There are many different parts that work together to fight diseases and infections. Our glands and blood, consisting of many different kinds of blood cells and other body fluids, make up the immune system.

The helper T cell is one part of the immune system. It roves through the body in the bloodstream, like a sentry looking for the enemy, searching for pathogens (germs). When a pathogen is located the helper T cell sends a message for antibodies to be produced to attack the pathogen. Antibodies kill the pathogen and the body is healthy again.

STEP 1

This is an infected helper T cell.

The helper T cell is one of the cells that HIV attacks. When blood, semen or other body fluids enter the body of another person, the helper T cells can be infected with HIV.

Inside the helper T cell, HIV can stay for a long time without causing any damage. A person with the virus can be tested to see if antibodies to the virus are in his or her body. We do know that HIV can hide quietly in the helper T cell for a long time (ten or more years) and the person with the virus may not feel ill or have any symptoms.

STEP 2

HIV reproduces.

For some reason that still puzzles scientists, a signal is received by HIV. It starts to reproduce itself.

STEP 3

HIV continues to multiply.

Soon the helper T cell becomes so crowded with HIV it bursts. The helper T cell is destroyed. Now HIV is free in the blood, semen and other body fluids to hunt for other helper T cells to invade. *Note:* This demonstrates infection by cell-free virus. It is also possible to have cell-to-cell transmission among various other cells.

STEP 4

The cycle is repeated.

HIV invades other helper T cells. The process continues until many, many helper T cells are destroyed.

Now the immune system is in trouble. There are very few helper T cells to be sentries and hunt for pathogens. The signal for the production of antibodies to fight diseases is not sent out when a pathogen enters the body.

The person with HIV can now get infected by pathogens that he/she would normally have natural immunity to. Two diseases that often affect people infected by HIV are *Pneumocystis carinii* pneumonia (PCP) and Kaposi's sarcoma (KS), a kind of cancer.

Closure: It is very important to know how to prevent HIV from entering your body. A person will not get HIV if he or she does not have sexual intercourse and avoids any activity that mixes one person's blood with another, such as sharing needles for injection drug use, ear piercing or tattooing or blood brother/blood sister activities.

IMMUNE SYSTEM OVERVIEW

NAME ______________________________ DATE ____________

Directions: Read the following. Write definitions on **Key Vocabulary Worksheet** using this overview as a resource.

A *disease* occurs when there is an upset or breakdown in the body functions. People recover from some diseases in a short time. Other diseases last a long time. Some leave permanent damage. Other diseases can cause death.

Diseases can be caused by *pathogens*, which are disease-producing organisms or substances sometimes called "germs." Some *viruses, bacteria, fungi and protozoa* are pathogens. All of these are very small and can be seen only with a powerful microscope.

A virus is a bundle of genetic material with a special coating made of protein. A virus carries instructions for copying itself. A virus is not actually alive because it cannot reproduce itself. *It must invade a living cell to reproduce.*

A few of the diseases caused by viruses are *chickenpox, measles, mumps, polio, influenza and the common cold.* HIV is the name of the virus that can lead to AIDS.

When diseases are passed or *transmitted* from one person to another they are said to be *infectious* or *contagious*. There are three ways diseases can be transmitted: *by air, by water* and *by direct contact*.

Our bodies have ways of protecting us from disease. Our skin is strong and keeps out many diseases and infections.

The *white blood cells* are another protector. If you get cut and the cut is not clean, white blood cells surround and kill the germs. They help repair the damaged tissue.

When a virus like chickenpox enters the body, the *immune system* produces chemicals called *antibodies*. The antibodies fight the disease. Some antibodies, like those for chickenpox, can stay in the body so the person will not be infected again. A person with such antibodies is said to have *active acquired immunity.*

It is also possible for a person be *exposed to* or to come in contact with a disease and not become *infected*. Or, a person may be infected with a disease and have no outward *symptoms*, but can transmit pathogens to others. Sometimes people come in contact with a disease, and because they have a healthy immune system they get sick for a very short time. Sometimes they are infected and become quite ill. The time between *infection* (when the pathogen enters the body) and the signs of the disease is the *incubation* period.

A person who has a disease that is *contagious* is called a *vector* or is said to be *infected.* Vectors may have symptoms of the disease or may look and feel perfectly healthy.

Some people have a *natural immunity* and never get certain contagious diseases.

Scientists are able to make a substance that will make antibodies appear in the body without the person having to get sick. This substance is called a *vaccine. Passive acquired immunity* is created by the vaccine, which is generally injected (a shot). In some cases immunity wears off and vaccination is repeated with boosters every few years, as in the case of tetanus. When was your last tetanus shot?

KEY VOCABULARY

NAME________________________________ DATE ____________

Directions: Read the **Immune System Overview**. Write a definition for each of the following words.

Antibody: ________________________________

Vector: ________________________________

Disease: ________________________________

Exposure: ________________________________

Infection: ________________________________

Pathogens: ________________________________

Vaccine: ________________________________

White blood cells: ________________________________

Active acquired immunity: ________________________________

Passive acquired immunity: ________________________________

KEY VOCABULARY

Key

NAME____ DATE________________

Directions: Read the **Immune System Overview**. Write a definition for each of the following words.

Antibody: ***A chemical produced by the immune system that fights disease.***

Vector: ***A person who has a disease that is contagious or an animal or insect carrying the infectious agent.***

Disease: ***An upset or breakdown in the human body. Can leave permanent damage or cause death. Caused by pathogens.***

Exposure: ***Coming in contact with pathogens.***

Infection: ***Pathogens enter the body.***

Pathogens: ***Microscopic organisms that cause disease.***

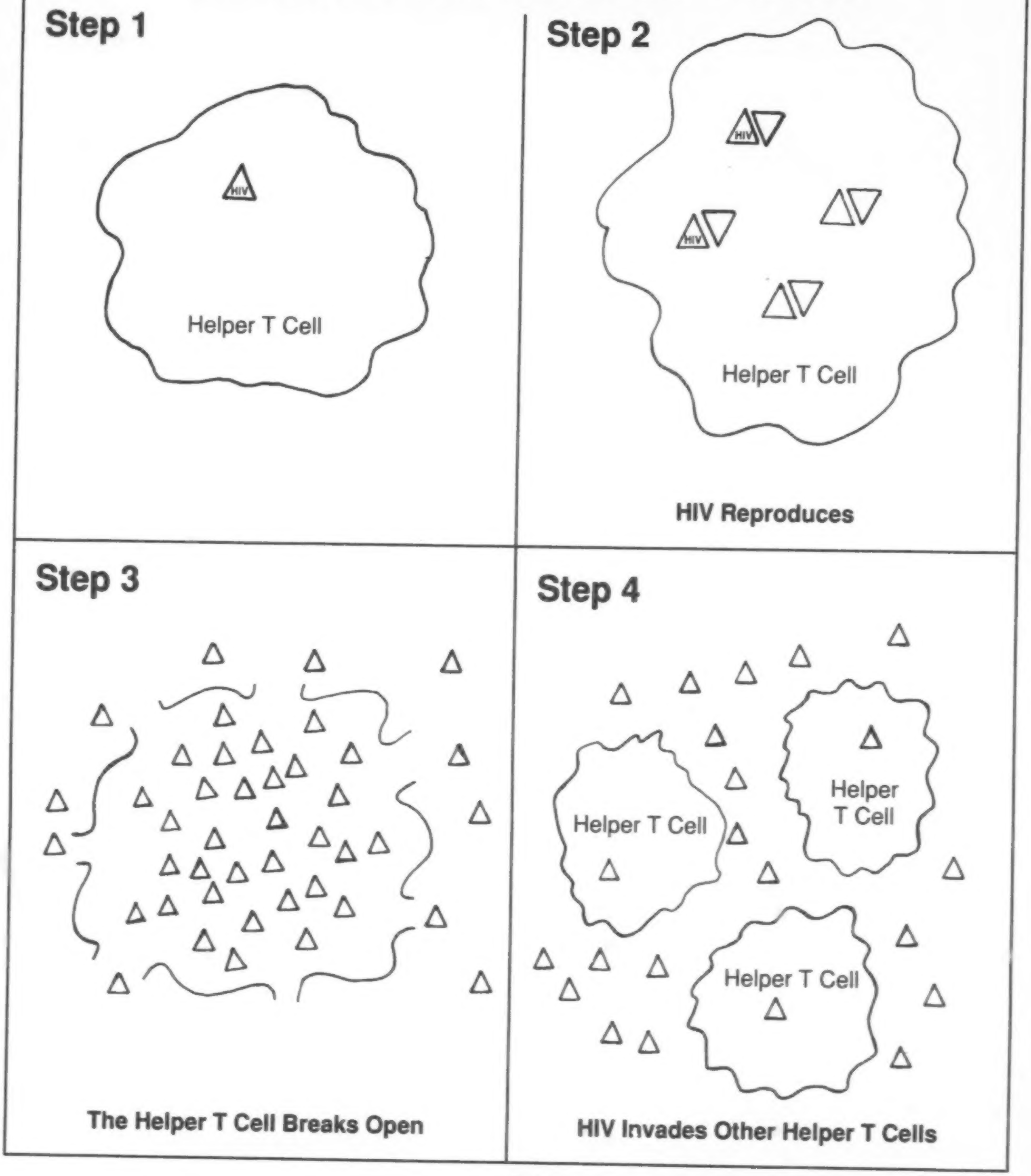
Vaccine: ***A substance produced by scientists that is usually injected to prevent disease.***

White blood cells: ***Important part of the immune system for fighting disease.***

Active acquired immunity: ***A condition that prevents a person from getting a disease again once you have gotten the disease.***

Passive acquired immunity: ***Disease protection obtained by a vaccine.***

DESTRUCTION OF HELPER T CELLS



HIV Reproduces

The Helper T Cell Breaks Open

HIV Invades Other Helper T Cells

LESSON

10

THE TRUTH ABOUT MYTHS

Objective

Students will be able to differentiate between facts and myths about the transmission of HIV and prevention of infection.

Time

One class period.

Overview

One of the tragedies of HIV is the perpetuation of misinformation. Many myths are created and passed on to others simply through ignorance and hearsay. These myths have caused unnecessary hardships on and prejudice toward many persons infected with HIV. These myths have also spread irrational fears to some and left others to make unsafe decisions due to misinformation.

In this lesson, students roleplay four students having lunch. Their discussion centers on the new kid who is infected with HIV. The script brings out many of the misconceptions about HIV and how it is transmitted. In response to the misinformation, one knowledgeable student tells the others the truth about how HIV is transmitted and how it is prevented.

Instructional Strategies

Brainstorming, cooperative learning groups, critical thinking, roleplaying.

Teacher Materials and Preparation

COPY:

✓ **Truths and Myths Script**, one for each student.
✓ **HIV Truth or Myth** worksheet, one for each student.

REVIEW:

✓ **Truths and Myths List** ***Teacher Background Information***

Procedure

■ Have students imagine that a student infected with HIV will be transferring into the class. Ask them to react, and record their thoughts and concerns on the board. Do not judge or contradict any of these thoughts. Tell students you will return to this list after they have completed a roleplay about HIV.

■ Divide students into cooperative learning groups of four each. Distribute four copies of the **Truths and Myths Script** to each group.

Note: Depending on the skills of your students, you may choose to read the script aloud as a whole class, rotating roles after a few lines. This process would take the place of more involved cooperative learning groups that require higher order thinking skills. After reading through the script, volunteers could be called upon to point out lines that represent either facts or myths about the transmission of HIV.

Ask students to assume the four roles within their groups. Students should read through the script completely two times. The first time they should simply read it, looking for examples of facts and myths. The second time they should stop and underline phrases or sentences whenever someone thinks he/she has found a fact or a myth about HIV.

After underlining sentences in the scripts, have group members divide their information into two lists, one for facts and one for myths. When all groups have completed their lists, call on a representative from each group to share one piece of information with the whole class. Continue until all facts and myths from the groups' lists have been recorded.

■ Have students look back at the thoughts and concerns listed on the board earlier and ask them to label these as facts or myths based on the new information from the script. Using the **Truths and Myths *Teacher Background Information***, add and discuss any other items that have not been addressed.

Ask students to consider why myths about HIV get started in the first place. Have them share their thoughts. Discuss the role fear and other emotions play in forming beliefs about controversial subjects. For example, the myth that heterosexuals don't become HIV infected may be used as an excuse by some who aren't willing to accept responsibility for their own sexual activities.

■ Distribute the **Truth or Myth** worksheet to each student and correct with the class immediately upon completion.

Evaluation

Examine worksheets and observe student participation in the discussion to determine student understanding of the transmission of HIV.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Have students in groups of four rehearse and present different sections of the roleplay script. If the school has a video camera, record the performances to show at a later date.

TRUTHS AND MYTHS SCRIPT

(Four students are having lunch and talking during noon break.)

José: Hey, have you heard they're going to let a new kid infected with HIV into our class?

Mark: No way and no thanks!

Janet: You mean Mike. He's in my church. He's a pretty nice guy and smart, too.

Suzy: I hope I don't have to sit near him. What if he sneezed on me? My dad says you can get HIV just by kissing, so sneezing's probably the same.

José: What about us? If we have gym with him, we'd have to shower in the same room with him. All that sweat.

Janet: I can't believe you guys. You're crazy. Where'd you get those wacky ideas?

Mark: Well, you know, everybody's talking about it. My parents are ready to move me to another school. They won't even let me take the bus home anymore.

José: I don't even go in the bathrooms here anymore.

Suzy: And drinking faucets. It's only canned Coke for me these days.

Janet: You guys don't have to worry about any of that stuff. There's no way you can get HIV like that.

Mark: What makes you think you know so much?

Janet: Well, my mom's a nurse at the hospital. She has to keep up on HIV. And she took me to a conference with her last month. So I really do know a lot about the facts. But there's new information coming all the time.

José: So tell us some of these so-called facts.

Janet: Only if you promise to listen and not be sarcastic.

Suzy: I'll listen—I really want to hear this.

Janet: What about you guys?

Mark: Yeah, we'll listen. Promise.

Janet: To start with, HIV is not that easy to get. When it's outside the body, chlorine bleach can kill it. The problem is when it gets inside the bloodstream. So far, nothing can kill it.

José: That's why we don't want Mike around us. We don't want to get it inside us.

Janet: But there's no way you're going to become HIV infected from him. Sometimes HIV can be found in all body fluids, like tears and saliva, but they only have traces, and you can't become HIV infected from them.

Suzy: Really? I didn't know that. So I could even share the same glass with Mike and I wouldn't get HIV.

Janet: That's right. And you could shower in the same locker room, shake hands and probably even kiss him.

José: Ah, c'mon. I can't believe that. Are you telling me that you'd kiss Mike, knowing he is HIV infected?

Janet: I didn't say that. I'm not sure what I'd do. I'd have to think about it. But I am saying that there hasn't been a single case reported or proven where someone has been infected with HIV through kissing someone who has HIV. Some people say to avoid wet kissing if you want to be real safe, but there's still no proof.

Mark: If it's not that easy to get, how come so many people are getting it?

Janet: Many people who have HIV got infected before they knew how to prevent it.

Suzy: How do you prevent it?

Janet: You prevent it by knowing the facts—by knowing it can only be transmitted through blood, semen and vaginal fluids.

Suzy: What about newborn babies?

Janet: That's right. I forgot that. If a pregnant woman has HIV, her newborn baby can also be infected with HIV.

Mark: But what about the blood and semen and stuff?

Janet: Most people who have HIV got it either through sexual contact, from sharing needles or through blood transfusions. Now they have new tests for screening blood, so they don't expect many more HIV infections because of transfusions. And you could never get HIV by giving blood.

José: How did Mike get HIV?

Janet: He's a hemophiliac—which means every so often he needs blood transfusions. So before they had good ways to screen blood, Mike got a transfusion with blood that had HIV in it.

Suzy: What a drag! Poor guy!

Janet: Back to the ways you can get it. Sexual contact. That's probably the main way the virus has spread so quickly.

Suzy: There's no way! Sex is out for me. I'm never gonna have sex.

José: Oh, that's great! So we'll all find private islands and the human race will die out.

Janet: I don't think we have to be so drastic. But I know that I'm going to wait to have sex until I'm older and ready to handle all the responsibilities that go along with it—especially now.

Suzy: But even then, if you're older and more responsible, you could still get HIV if you decide to have sex.

Janet: That's true. We just have to be safe. We need to know the histories of our partners and we have to use protection.

Mark: I know a lot of people who are already sexually active. They're sure not gonna stop until they're more responsible.

Janet: You're probably right, Mark. If they aren't going to wait to have sex until they're married, then they have to be as safe as possible. They should always use condoms and contraceptive jelly with nonoxynol-9—it helps to kill the virus before it gets in the bloodstream.

José: How come sharing needles is so risky for HIV infection?

Janet: Because a little bit of blood from the person who used the needle last stays in the syringe, then it gets transferred into the bloodstream of the next person to use it.

Suzy: How do they expect people to stop sharing?

Janet: A lot of people probably won't. But if they clean their needles with bleach each time they use them, they stand a good chance of killing HIV.

Mark: What about doctors and nurses? They can get stuck with needles by mistake and get HIV, right? Isn't your mother worried?

Janet: It's true that health care workers have to be very careful when working with infected patients. But they are well educated and follow safe guidelines.

José: I heard that a bunch of doctors and nurses have gotten HIV.

Janet: That's not true, José. Very few doctors and nurses have been infected with HIV. And most of those that have become infected were not following safe health care guidelines.

Mark: HIV is really rotten.

Janet: It sure is. One of the worst things is that many people don't even know they have been infected. Sometimes it can take up to seven years or even longer before any symptoms appear.

Suzy: You mean people who have HIV in their systems can give it to other people and not even know it?

Janet: That's right, Suzy.

Mark: Do people who get infected always die?

Janet: That's a good question, Mark. Nobody knows for sure. They do know that many infected people who come down with symptoms die within two years. Some have lived much longer. We do know most people infected eventually get sick. And, because we don't have a good treatment, most of them will die eventually.

José: Even Mike?

Janet: Yeah, even Mike.

TRUTHS AND MYTHS

Teacher Background Information

Truths

- Chlorine bleach (one part bleach to ten parts water) can kill HIV outside the body.
- Nothing can kill HIV, so far, inside the bloodstream.
- Nonoxynol-9 is believed to kill cell-free virus (virus outside of a cell), but some people may be allergic to it.
- HIV can be found in most body fluids.
- Tears and saliva have slight traces of HIV.
- No known cases of HIV infection have been transmitted through tears and saliva.
- HIV can be prevented.
- HIV can be transmitted through blood, semen and vaginal fluids.
- HIV can be transmitted through unsafe sexual practices.
- HIV can be prevented through safer sexual practices.
- HIV can be transmitted through sharing contaminated needles.
- Infected mothers can transmit HIV to their unborn babies.
- Very few health care workers have gotten HIV from working with infected patients.
- A small number of HIV infected women have been known to transmit HIV to their babies through breast milk.

Myths

- You can get HIV from an infected person's sneeze.
- You can get HIV through kissing on the lips.
- You can get HIV in showers.
- You can get HIV from sweat.
- You can get HIV from attending school with a classmate who is infected with HIV.
- You can get HIV from toilet seats.
- You can get HIV from drinking faucets.
- You can get HIV drinking from someone's glass.
- People who are infected with HIV are bad people.
- Only gay men get infected with HIV.
- Everybody's probably going to get infected with HIV eventually.
- Heterosexuals don't ever need to worry about HIV.
- You can get HIV when bitten by a mosquito.

HIV TRUTH OR MYTH

Directions: Read the following statements about HIV (the AIDS virus) and decide whether they are **truths** or **myths**. Write the correct answer on the line in front of each statement.

________ 1. Chlorine bleach can kill HIV outside the body.

________ 2. You can get HIV from drinking faucets.

________ 3. You can get HIV drinking from someone's glass.

________ 4. Nothing can kill HIV, so far, inside the bloodstream.

________ 5. You can get HIV from attending school with a classmate who is infected.

________ 6. HIV can be found in most body fluids.

________ 7. You can get HIV from toilet seats.

________ 8. Tears and saliva have slight traces of HIV.

________ 9. No known cases of HIV infection have been transmitted through tears and saliva.

________ 10. HIV infection can be prevented.

________ 11. You can get HIV in showers.

________ 12. HIV can be transmitted through blood, semen and vaginal fluids.

________ 13. You can get HIV from sweat.

________ 14. HIV can be transmitted through unsafe sexual practices.

________ 15. HIV infection can be prevented through abstinence and safer sexual practices.

________ 16. You can get HIV through kissing on the lips.

________ 17. HIV can be transmitted through sharing contaminated needles.

________ 18. You can get HIV from an infected person's sneeze.

________ 19. Infected mothers can transmit HIV to their unborn babies.

HIV TRUTH OR MYTH WORKSHEET

Key

Directions: Read the following statements about HIV and decide whether they are **truths** or **myths**. Write the correct answer on the line in front of each statement.

TRUTH 1. Chlorine bleach can kill HIV outside the body.

MYTH 2. You can get HIV from drinking faucets.

MYTH 3. You can get HIV drinking from someone's glass.

TRUTH 4. Nothing can kill HIV, so far, inside the bloodstream.

MYTH 5. You can get HIV from attending school with a classmate who is infected.

TRUTH 6. HIV can be found in most body fluids.

MYTH 7. You can get HIV from toilet seats.

TRUTH 8. Tears and saliva have slight traces of HIV.

TRUTH 9. No known cases of HIV infection have been transmitted through tears and saliva.

TRUTH 10. HIV infection can be prevented.

MYTH 11. You can get HIV in showers.

TRUTH 12. HIV can be transmitted through blood, semen and vaginal fluids.

MYTH 13. You can get HIV from sweat.

TRUTH 14. HIV can be transmitted through unsafe sexual practices.

TRUTH 15. HIV infection can be prevented through abstinence and safer sexual practices.

MYTH 16. You can get HIV through kissing on the lips.

TRUTH 17. HIV can be transmitted through sharing contaminated needles.

MYTH 18. You can get HIV from an infected person's sneeze.

TRUTH 19. Infected mothers can transmit HIV to their unborn babies.

LESSON
11

SYMPTOMS DON'T REVEAL EVERYTHING

Objectives

Students will be able to identify the symptoms related to HIV infection.

Students will be able to explain why it is difficult to determine HIV infection.

Time

One class period.

Overview

Many students may already be at risk for HIV infection or may make choices in the future that could put them at risk. These students must be knowledgeable about the continuum of HIV infection. They must also understand that being tested or knowing your health and sexual history is the only sure way to know if you've been exposed to HIV.

This lesson uses a simulation to show students a variety of symptoms for the different possible conditions related to HIV. Volunteers are given clues as to their condition and then asked to guess their condition. Students will learn that observing symptoms alone is not enough.

Instructional Strategies

Class discussion, simulation, quiz.

Teacher Materials and Preparation

MAKE:

- ✓ (optional) Make five headbands out of elastic or cloth. Sew a small piece of Velcro to the outside of each. (Straight pins can be used instead of Velcro.)
- ✓ Cut out the **HIV-Related Conditions Labels** and glue to cardboard or tagboard of the same size. Attach a piece of Velcro to the back of each label. (A straight pin can be used instead of Velcro.) Attach labels to headbands.

COPY:

- ✓ **Symptoms Clue Sheet**, one for each student.
- ✓ **Symptoms: True or False Quiz**, one for each student.

Procedure

■ Call on five students to volunteer as assistants for this lesson. Ask them to leave the room while you brief the rest of the class and distribute the **Symptoms Clue Sheet.** Ask some students to read the conditions, symptoms and clue ideas to the class.

Tell the students it is their responsibility to try to give the five volunteers clues as to what conditions they are portraying, without telling them directly. Students are only allowed to tell the volunteer something about his or her health that they have noticed lately.

■ Have the five volunteers return to the classroom. If you are using headbands and labels, place one on each of the volunteers' heads, making sure volunteers don't see their labels. If you are not using the headbands and labels, place five chairs against the board and ask each volunteer to take a seat. Once they are seated and facing away from the board, write one of the five conditions above each volunteer.

■ Tell students you will begin by giving the first two clues. To the student who is "Healthy Without HIV Infection" say, "Hey, Mike, it really amazes me how healthy you always are. You must eat right." To the student who is "HIV-Infected Without Symptoms" say, "Gee, Sue, how is it you can belong to all those clubs, participate on all those teams, keep a 4.0 average and always be so healthy?"

Call on class members to give their clues to the volunteers. Make sure each student has a chance to give a clue. Have the students rotate the clues so the volunteers each get the same number of clues.

When all students have given their clues and all symptoms from the handout have been shared with the volunteers, ask the volunteers to guess what is wrong with them, if anything, and explain why they feel that way. When they have all made their guesses, have them look at their labels.

■ Discuss with the volunteers who made incorrect guesses what threw them off the track. It is possible that all volunteers except the one with the "AIDS" label will make incorrect guesses. Distribute the handout to the volunteers so they may also look at the labels and the related symptoms.

■ Discuss with the class the similarities between the "Healthy Without HIV Infection" symptoms and the "HIV-Infected Without Symptoms" symptoms. Explain that a large number of people who have been infected with HIV are completely healthy and have no knowledge they are infected.

Discuss the similarities between the "Sick Without HIV Infection" and the "HIV-infected Without Symptoms." Tell students that most of the symptoms of HIV infection are very similar to the symptoms of many other illnesses such as the flu or the common cold. Having these symptoms alone is no reason to assume you have HIV. However, if you have engaged in any behavior that is risky (sharing needles or unsafe sexual activities) and you exhibit chronic symptoms, then it may be a good idea to be tested.

- This is a good time to tell students that the only sure way to know if you are HIV infected is to be tested. Emphasize the importance of knowing your own health history as well as the history of partners if you are sexually active. Remind students that sexual intercourse and sharing needles, are at-risk behaviors. Inform students that the tests are very reliable although they have occasionally been found to be inaccurate. Discuss the importance of being counseled before and after having the HIV test, as the results can be devastating if not properly prepared for.

- Distribute the **Symptoms: True or False Quiz** and correct with students upon completion.

Alternative Strategy for More Advanced Students

Instead of using the quiz, have students write an essay suggesting why looking at symptoms alone is not an accurate way to diagnose whether a person is infected with HIV.

Evaluation

Examine quizzes and/or essays to determine students' understanding of the symptoms of HIV infection.

Have students write "I learned" statements and rank themselves on individual and/or group participation.

SYMPTOMS: TRUE OR FALSE QUIZ

Directions: Read each sentence below and fill in the blanks with either **true** or **false**.

1. Physically fit people never get HIV. ________
2. Some people have been infected with HIV and don't even know it. ________
3. If you never engage in at-risk behaviors, you probably won't ever get HIV. ________
4. Purple spots on the skin and white sores in the mouth can be symptoms of HIV infection. ________
5. If you get regular exercise and eat well you can't get HIV. ________
6. Abstaining from sex and from sharing needles prevents HIV infection. ________
7. A special blood test can tell you if you've been infected with HIV. ________
8. If you have swollen glands and a fever, you probably are infected with HIV. ________
9. Some people infected with HIV are still good athletes. ________
10. If you maintain a normal weight, you haven't been infected with HIV. ________

SYMPTOMS: TRUE OR FALSE QUIZ

Key

Directions: Read each sentence below and fill in the blanks with either **true** or **false**.

1. Physically fit people never get HIV. ***FALSE***
2. Some people have been infected with HIV and don't even know it. ***TRUE***
3. If you never engage in at-risk behaviors, you probably won't ever get HIV. ***TRUE***
4. Purple spots on the skin and white sores in the mouth can be symptoms of HIV infection. ***TRUE***
5. If you get regular exercise and eat well you can't get HIV. ***FALSE***
6. Abstaining from sex and from sharing needles prevents HIV infection. ***TRUE***
7. A special blood test can tell you if you've been infected with HIV. ***TRUE***
8. If you have swollen glands and a fever, you probably are infected with HIV. ***FALSE***
9. Some people infected with HIV are still good athletes. ***TRUE***
10. If you maintain a normal weight, you haven't been infected with HIV. ***FALSE***

SYMPTOMS CLUE SHEET

CONDITIONS	SYMPTOMS	CLUE IDEAS
Healthy Without HIV Infection	PHYSICALLY FIT, ACTIVE, GOOD DIET, REGULAR EXERCISE, MAINTAINS WEIGHT, NEVER GETS SICK	"MIKE, IT'S GREAT THAT YOU'RE SO GOOD AT SO MANY DIFFERENT SPORTS."
HIV-Infected Without Symptoms	PHYSICALLY FIT, ACTIVE, GOOD DIET, REGULAR EXERCISE, MAINTAINS WEIGHT, NEVER GETS SICK	"HEY, SUE. HOW CAN YOU SWIM SO MANY LAPS LIKE THAT DAY AFTER DAY?"
Sick Without HIV Infection	FATIGUE, FEVER, CHILLS, WEIGHT LOSS, SWOLLEN GLANDS, DIARRHEA	"YOU'VE SURE MISSED A LOT OF SCHOOL LATELY. HAS THAT COLD GOTTEN ANY BETTER?"
HIV-Infected With Symptoms	FATIGUE, FEVER, CHILLS, WEIGHT LOSS, SWOLLEN GLANDS, CONSTANT DIARRHEA, WHITE SPOTS IN MOUTH	"IT'S GOOD TO SEE YOU BACK IN SCHOOL. HAVE YOU FINALLY GOTTEN OVER YOUR FEVER?"
AIDS	FATIGUE, FEVER, CHILLS, WEIGHT LOSS, SWOLLEN GLANDS, CONSTANT DIARRHEA, WHITE SPOTS IN MOUTH, PURPLE SORES ON SKIN, PNEUMONIA (PCP)	"I'M SORRY TO HEAR YOU'VE GOT PNEUMONIA AGAIN, SAM."

HIV-RELATED CONDITIONS LABELS

HEALTHY WITHOUT HIV INFECTION

HIV-INFECTED WITHOUT SYMPTOMS

SICK WITHOUT HIV INFECTION

HIV-INFECTED WITH SYMPTOMS

AIDS

LESSON
12

HIV, AIDS, DEATH AND COMPASSION

For more advanced students

Objective

Students will demonstrate compassion for a person with AIDS.

Time

One class period.

Overview

Death touches all our lives eventually. Death from old age is accepted as from natural causes. Accidental death is shocking and is something a teacher must deal with in the classroom, especially in the case of the death of a classmate or a known teen suicide.

In this lesson, students hear a reading about the death of a person with AIDS. Students consider what it would be like to to know you have just a short time to live. Activities are suggested to enhance understanding and compassion for those who know they are dying.

Instructional Strategies

Class discussion, creative writing, reading.

Teacher Materials and Preparation

HAVE:

✓ The names of Persons with AIDS (PWAs) who would like to receive letters from students, which can be obtained from your local AIDS project (optional).

COPY:

✓ **I've Got My Freedom** poem, one for each student.

Procedure

■ Distribute the **I've Got My Freedom** poem. Tell students the poem was written by Larry Folsom when he knew he had AIDS. Read the poem to the class.

Discuss which lines talk about death, which about AIDS. Ask if students can tell how the writer feels about what is happening.

■ Read the following to the class, adapted from a piece by Jim Schultz and Dan Brady, which appeared in *The Volunteer News of the Santa Cruz AIDS Project*, May/June 1988.

Larry Folsom

His obituary began: "Services are Thursday for Larry Folsom, who died Tuesday after a long illness. He was 27." His obituary ended: "Contributions to the Hospice are preferred."

Ironically, one of the last things to outrage Larry Folsom was a similar obituary he read about a friend of his in a nearby town. "They totally white-washed the truth," he said.

In fact, Larry's friend had died of AIDS. But in spite of the AIDS education blitz, most people choose to avoid any mention of a family member dying of AIDS. That incensed Larry Folsom. And with good reason.

Larry worked at a local hospital for eight years, where he established many of his long-term friendships. Some of those friends were later called upon to help establish the local AIDS project. Larry's love of singing and his desire to help people with AIDS seemed a natural combination for his participation in variety show fundraisers for the local AIDS project. That association was important to him.

But during his performance in the 1987 variety show, one couldn't help but see a change in Larry Folsom. In the following month his worst fears were realized when he was diagnosed with AIDS. He became a recluse, shutting himself off from his friends. But with time and some friendly encouragement he slowly started dealing with his denial and his feelings of guilt and shame.

That's when Dan Brady, a close friend since their teens, brought a new dimension to their friendship. Driven by the frustration of not knowing how to give Larry the kind of emotional support he needed, Dan took the "buddy" training at the local AIDS project, designed specifically to teach volunteers how to give support to Persons with AIDS (PWAs). The resulting bond between best friends became stronger and more powerful than either of them could have imagined.

They constantly dealt with the slow, debilitating effects that AIDS had on Larry's body. They worked through the intense anger that Larry felt knowing that his life was being yanked away from him while he was still in his twenties. They consoled one another through the desperation of never knowing those things that might have been.

All the while, however, Larry was out there, sharing his adventure with anyone who had the guts to ask, "What is it like to be living with AIDS?" Larry earned the admiration and respect of everyone he knew as he faced an ominous future with honesty, courage and dignity.

He didn't do it alone, that's true.

Dan was there. Kathy was there for him, too. She was a special joy in Larry's life. And when the going got really rough and Larry could no longer care for himself, his mother and grandmother saw to his every need, every moment.

Shortly after being diagnosed with AIDS, Larry wrote the song "I've Got My Freedom" with the intention of singing it at the 1988 variety show fundraiser.

Larry died at peace with himself on a Tuesday morning, April 19, 1988. And, in the last year of his life he grew more than in the 26 years prior. He taught us all a bit about conviction, compassion and character.

So, you see, Larry didn't just die "after a long illness." Larry did battle with AIDS, and he won, and he died.

■ Begin a discussion of how it would be to die from AIDS. A person with AIDS would know that they were going to die. What experiences in life would they miss by dying at an early age? Discuss how it would feel knowing while you were very sick that you would not get well again. Point out to students that more PWAs (Persons with AIDS) are living longer than ever before. It is a cyclical condition, not a steady decline.

Discuss how people can get ready to die. Explain how the *hospice* movement helps people. Its members believe that dying is a natural part of life and the quality of a patient's remaining life is very important. They also believe that people should be able to choose where they will spend their last days, whether at home or in a hospital, getting the best care and support possible, and that no one should die alone. Surviving family members will need support after their loved one has died.

■ Conclude the lesson with a creative writing session, having students write a letter to a Person with AIDS (PWA).

If possible, obtain names from your local AIDS project of PWAs who would like to receive mail. If this is not possible, have students imagine that they are writing to a "real" Person with AIDS.

Allow students to finish writing outside of class if they need extra time. When letters are completed have students read their work to each other in small response groups.

Evaluation

Teacher will read students' letters to observe compassion for people with AIDS.

Students will write "I learned" statements and rank themselves on individual and/or group participation.

Follow-Up/ Extension

Many teachers are having great success bringing in Persons with AIDS as guest speakers.

The AIDS Quilt has received a lot of attention. Some classes have visited and viewed the quilt; others have made quilts as a memorial when dealing with a death in their own community.

Story on Larry Folsom reprinted with permission from Jim Schultz and Dan Brady. From *The Volunteer News of the Santa Cruz AIDS Project*, May/June 1988. Santa Cruz, CA: The Santa Cruz AIDS Project.

I'VE GOT MY FREEDOM

Locomotion—that's what it is
Moving on the track—to destiny

Give me an A
Give me an I
Give me a D and an S
(Uhhh...uhh, uh-huh)

It stands for ALIVE
In a death sentence

Where is the hope, the faith, the dream?
Pick up the pieces and plot out that dream
Any one of us could die tomorrow

What do you want?
Follow that rainbow
On a horse up into the sky

Where, oh where has my little child inside
gone?
Where, oh where can it be?

I need to lighten up and learn to play
hey hey

I'm free from life games
As we usually play them
I can do what I want to do

Don't have to go to my
In-laws for tuna casserole
Or worry about parking tickets

I've got my freedom
To FLY, FLY, FLY...

Larry Folsom
(1961-1988)

"I've Got My Freedom" is reprinted with permission from *The Volunteer News of the Santa Cruz AIDS Project*, May/June 1988. Santa Cruz, CA: The Santa Cruz AIDS Project.

APPENDIX
A

GLOSSARY

GLOSSARY

abstinence
Avoiding sexual contact.

AIDS
Acquired Immune Deficiency Syndrome. A viral disease that damages the body's immune system, making the infected person susceptible to a wide range of serious diseases. May also involve neurologic symptoms.

antibody
Proteins produced in the blood in response to toxins or other foreign organisms. Antibodies in some cases can neutralize toxins and help eliminate infections, though in the case of HIV, antibodies are not effective in combating the disease.

blood transfusion
To put blood into the veins of an individual. First, blood is withdrawn from a donor. It may be stored for some period of time. Then, to treat injury or illness, a recipient is given this donated blood.

carcinoma
A malignancy, or cancer, made up of a particular kind of cells and with a tendency to metastasize, or spread. The cells of a carcinoma are epithelial cells, which cover the internal and external surfaces of the body.

casual contact
Day-to-day contact between people at home, school, work or in the community, which does not involve sexual interaction or the sharing of needles.

casual transmission
Transmission of disease through casual contact. Colds and flus are often casually transmitted. HIV is not transmitted casually.

CDC
The Centers for Disease Control and Prevention, a federal agency based in Atlanta, which studies and monitors the incidence and prevalence of disease in the United States, and also provides health and safety guidelines for the prevention of disease.

cellular immunodeficiency
A defect in the immune system characterized by poor functioning of the helper T cells. This kind of immune deficiency is seen in HIV infection. Other immune deficiencies may affect the B-cells (antibody immunodeficiency), the phagocytes (phagocytic dysfunction disorders) or the lymphoid cells (combined immunodeficiency).

condoms

Also called rubbers or prophylactics. A latex sheath used to cover the penis during intercourse to prevent pregnancy and the transmission of diseases. Latex condoms are effective in preventing the transmission of HIV. "Natural skin" condoms are not reliable for the prevention of disease.

disease

A particular destructive process in an organ or organism with a specific cause and characteristic symptoms; an illness.

EIA

Another way to abbreviate "enzyme-linked immunosorbent assay," hence the same thing as "ELISA."

ELISA

A test used to detect HIV antibodies in blood samples. The most inexpensive and widely used test to date. Stands for enzyme-linked immunosorbent assay.

epidemiology

The study of the distribution and causes of diseases.

false negative

In an HIV antibody test, a result that reads negative when there is actually antibody in the blood. A type of erroneous result.

false positive

In an HIV antibody test, a result that reads positive when there is actually no antibody in the blood. A type of erroneous result.

helper T cell

A specialized white blood cell that helps orchestrate the immune system's response to infection. The helper T cell is invaded and disabled by HIV.

hemophilia

A rare, inherited bleeding disorder of males in which normal blood clotting is not possible. Treated with Factor VIII, a product made of human blood that allows normal clotting to occur.

HIV

Human immunodeficiency virus, the accepted scientific name for the virus that causes AIDS.

IFA

A test used to detect HIV antibodies in blood samples. More difficult to perform and more expensive than the ELISA. Also believed to be more specific (can accurately identify samples without antibody) than the ELISA, so sometimes used to verify ELISA results. Stands for "immunofluorescent assay."

immune system

The body's system of defense against disease, consisting of specialized cells and proteins in the blood and other body fluids.

intercourse

A type of sexual contact involving one of the following: (1) insertion of a man's penis into a woman's vagina, called "vaginal intercourse"; (2) placement of the mouth on the genitals of another person, called "oral intercourse"; or (3) insertion of a man's penis into the anus of another person, called "anal intercourse."

intravenous

"Within veins"; injection by needles directly into the blood veins.

Kaposi's sarcoma

KS, a cancer or tumor of the blood and/or lymphatic vessel walls, sometimes seen in persons with HIV. Usually appears as pink or purple blotches on the skin.

lubricant

In this context, a substance applied to condoms or sexual organs that makes contact between condom and skin slippery. Lubricated condoms are more comfortable, safe and exciting. Lubricants can be purchased in most places where condoms are sold. Use only *water- based* lubricants with condoms, and read labels carefully—any fats or oils will break down the latex and may cause the condom to tear.

lymphadenopathy

The condition of lymph nodes being swollen. Often a sign of infection or illness. People infected with HIV often have chronic lymphadenopathy.

lymphoreticular malignancy

A malignant cancer of the lymph system. A malignancy based in the lymph system and its connecting structures, including lymphocytic leukemias, multiple myeloma, and non-Hodgkin's lymphoma. Leukemias are cancers of the blood, myelomas are cancers of the bone marrow, and non-Hodgkin's lymphomas are a heterogeneous group of lymph system malignancies.

malignant

Tending to become progressively worse and to result in death.

neurologic
Pertaining to the nervous system or brain. Persons infected with HIV often develop neurologic infection, with symptoms such as forgetfulness, confusion, perceptual problems, lack of coordination or loss of muscle control.

nonoxynol–9
A spermicide that has also been shown to kill HIV in laboratory studies. Available in some sexual lubricants that can be used with condoms, nonoxynol-9 is *not* an effective HIV prevention method used on its own. Concentrations of 5% or more are recommended.

opportunistic infection
An infection caused by organisms that are not able to affect people with healthy immune systems.

parenteral
By injection. This can be subcutaneous, intramuscular, intravenous or through other entries.

pathogen
Any disease-producing microorganism.

perinatal
Pertaining to or occurring in the period shortly before or shortly after birth.

***Pneumocystis carinii* pneumonia**
PCP, the most common life-threatening opportunistic illness diagnosed in HIV. Caused by a protozoan parasite, it creates difficulty in breathing and is the most common cause of death for people with HIV.

PWA
Person with AIDS. Many people with AIDS prefer this term to others such as *AIDS victim*, or *AIDS patient.* They would rather see themselves as active participants in their treatment and healing, not helpless victims who passively wait to die. They are whole and complete persons, and the term patient reduces them to little more than a case of disease. Some people prefer the term *PLWA*, person living with AIDS.

risk
The chance of injury, damage or loss; dangerous chance; hazard.

safer sex
Sexual activity that reduces the risk of HIV infection. In safer sex, no body fluids are shared. It includes using latex condoms with nonoxynol-9 during sexual intercourse.

secondary malignancy

A malignancy that develops due to the metastases, or spread, of a primary (initial) malignancy; or a cancer that appears after but independent of a primary malignancy.

secondary opportunistic infection

An infection that develops after the immune system has been weakened by an initial infection. The initial infection is often viral.

secretion

A substance generated from blood or cells that may have cleansing, lubricating or other characteristics.

seropositive

In the case of HIV, the condition of having HIV antibodies in the blood.

spermicide

Any substance used to help prevent pregnancy because of its ability to kill sperm. One spermicide, nonoxynol-9, has also been shown to kill HIV in laboratory studies.

STD

Sexually transmitted disease; any of a number of diseases that can be transmitted through various forms of sexual contact. HIV is an STD, transmitted through sexual intercourse.

surveillance

In public health terms, monitoring and collecting data on incidence of disease—essentially, counting the number of cases.

transmission

Passed along. In the context of disease, passed from one individual to another.

vaccine

A preparation introduced to the body to produce immunity to disease. Historically, most vaccines have been made of weakened or killed disease organisms themselves. In the future, we may see vaccines that are genetically engineered non-lethal forms of such organisms.

vector

A person who has a disease that is contagious or an animal or insect carrying the infectious agent.

virus
An organism formed of genes surrounded by a protein coating. Technically not living, since it cannot reproduce itself. Smaller than any living organism.

Western Blot
A test used to detect HIV antibodies in blood samples. More difficult to perform, and more expensive, than the ELISA. Also believed to be more specific (can accurately identify samples without antibody) than the ELISA, so sometimes used to verify ELISA results.

APPENDIX
B

"I LEARNED..." EVALUATION RECORD SHEET

"I LEARNED"

NAME ________________________________ DATE ____________

Directions: Write an "I learned" statement on the lines following the day, or write another statement or question as directed.

Rank yourself (Circle 4,3,2,1 or 0) each day on your level of Participation/Learning in this class using the following criteria: **(4)** I came to class prepared, listened well to both the teacher and my peers, followed directions, contributed to the success of my group and completed assignments; **(3)** I did all but one of the above; **(2)** I was in class and didn't feel like working; **(1)** I disrupted the class process; **(0)** I was absent.

Monday ____
________________________________ 4 3 2 1 0

Tuesday ____
________________________________ 4 3 2 1 0

Wednesday ____
________________________________ 4 3 2 1 0

Thursday ____
________________________________ 4 3 2 1 0

Friday ____
________________________________ 4 3 2 1 0

Student Comments: ________________________________
____
____

Teacher Comments: ________________________________
____
____

APPENDIX
C

HIV PRE–POST TEST

HIV PRE–POST TEST

True or False Questions

_____ 1. HIV is a virus.

_____ 2. HIV can be transmitted from a pregnant mother to her child.

_____ 3. HIV can be transmitted by drinking from someone's water glass.

_____ 4. Very few doctors or nurses have gotten HIV from infected patients.

_____ 5. An active and healthy person won't get HIV.

_____ 6. Some people infected with HIV have been cured.

_____ 7. HIV infection can be prevented.

_____ 8. Epidemics cannot be stopped.

_____ 9. Blood-to-blood contact is the only way to transmit HIV from one person to another.

_____ 10. When someone infected with HIV dies, it's because his or her immune system has broken down.

Fill-In Questions

1. Four organisms that cause disease are ____________________, ____________________, __________________ and ____________________.
2. ____________________ and ____________________ are two body fluids that transmit HIV.
3. Avoiding sexual contact is called ____________________________________

STUDENT

Essay Questions

1. Describe at least three ways to prevent HIV infection.

2. Describe the ways HIV can be transmitted from person to person.

HIV PRE–POST TEST

Key

True or False Questions

T 1. HIV is a virus.

T 2. HIV can be transmitted from a pregnant mother to her child.

F 3. HIV can be transmitted by drinking from someone's water glass.

T 4. Very few doctors or nurses have gotten HIV from infected patients.

F 5. An active and healthy person won't get HIV.

F 6. Some people infected with HIV have been cured.

T 7. HIV infection can be prevented.

F 8. Epidemics cannot be stopped.

F 9. Blood-to-blood contact is the only way to transmit HIV from one person to another.

T 10. When someone infected with HIV dies, it's because his or her immune system has broken down.

Fill-In Questions

1. Four organisms that cause disease are ***bacteria, viruses, fungi and protozoa.***
2. ***Blood*** and ***semen*** are two body fluids that transmit the AIDS virus. ***Vaginal secretion*** is also correct.
3. Avoiding sexual contact is called ***abstinence***.

Essay Questions

1. Describe at least three ways to prevent HIV infection. ***abstinence from sexual behavior; abstinence from injection drug use; having a monogamous relationship as in marriage; use of condoms; use of foam or contraceptive jelly with condoms***
2. Describe the ways HIV can be transmitted from person to person. ***blood, semen, vaginal fluids, pregnancy, breast milk***

APPENDIX
D

SAMPLE PARENT LETTERS

SAMPLE PARENT LETTER

Dear Parents,

On ____________________________, our class will begin an intensive study about human immunodeficiency virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS). As you know, AIDS is a deadly disease with no cure. It has reached epidemic proportions, and the only way to successfully prevent its spread is through honest and accurate information which can reduce risky and unhealthy behavior.

We would like to encourage you to attend a preview night we have scheduled on ______________________________. On that evening, we will be viewing films and videos on HIV, sharing the curriculum we will be using and having an open discussion regarding HIV education.

The curriculum we are using is comprised of 14 lessons dealing with all aspects of HIV/AIDS, including how to find accurate information, how to distinguish between facts and myths, diseases in general, epidemics, the immune system, other sexually transmitted diseases, transmission, symptoms and social issues.

We believe this program will be most successful if students have the opportunity to share what they learn and think regarding HIV/AIDS with their families. We invite you to become active participants in our HIV education program by having discussions at home with your children, sharing with them your knowledge and values about AIDS. Please feel free to call if you have any questions regarding this program.

Thanks for your support.

SAMPLE PERMISSION SLIPS

Two samples of permission slips have been included for use, dependent upon specific district or state requirements. **Sample 1** requires a teacher to have a signed permission slip returned for every student, indicating whether or not the student may participate in the program. **Sample 2** may be used when a district is only legally required to inform parents of the program and it becomes the responsibility of the parents to inform the school if their child is to be excluded from participation. In the interest of parental support and school-to-home communication, it is strongly suggested that **Sample 1** be used even in cases where **Sample 2** is legally acceptable. The permission slip should be attached to the bottom of the parent letter.

Sample 1

My child, ________________________, **has my permission** to participate in the HIV education program. I am interested in attending a preview night for parents on HIV education. YES________NO_________

Parent or Guardian Signature ________________________

Sample 2

My child, ________________________, **does not have my permission** to participate in the HIV education program. I agree to meet with my child's teacher to design an alternate course of study for the duration of the program.

Parent or Guardian Signature________________________

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INTO ADOLESCENCE

Learning
About
HIV

STUDENT WORKBOOK

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CONTEMPORARY HEALTH SERIES

INTO ADOLESCENCE:

Learning About HIV

Student Workbook

Jory Post and Carole McPherson

Contemporary Health Series

ETR Associates
Santa Cruz, California
1994

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CONTENTS

To the Teacher iv
Sample Article 1
Descriptions of News Categories 3
Newspaper Articles 5
Questions for the Expert 9
Information Verification Form 11
Epidemic Fact Sheet 1 13
Epidemic Fact Sheet 2 14
Epidemic Fact Sheet 3 15
Epidemic Fact Sheet 4 16
Epidemic Fact Sheet 5 17
Epidemic Fact Sheet 6 18
Disease Questions Worksheet 19
Description of Diseases 21
My Health Inventory 23
Communicable Disease Overview 25
Drawing Conclusions—Communicable Disease 27
Description of Sexually Transmitted Diseases 29
STD Questions Worksheet 33
Immune System Overview 35
Key Vocabulary 37
Destruction of Helper T Cells 39
Truths and Myths Script 41
HIV Truth or Myth 47
Symptoms: True or False Quiz 49
I've Got My Freedom 51
"I Learned" Lesson 1 53
"I Learned" Lesson 2 54
"I Learned" Lesson 3 55
"I Learned" Lesson 4 56
"I Learned" Lesson 5 57
"I Learned" Lesson 6 58
"I Learned" Lesson 7 59
"I Learned" Lesson 8 60
"I Learned" Lesson 9 61
"I Learned" Lesson 10 62
"I Learned" Lesson 11 63
"I Learned" Lesson 12 64

To the Teacher

Introduction

Health educators know that a well-designed curriculum, tailored to meet students' developmental needs and desires, greatly increases the likelihood of positive classroom experiences. And when these experiences are provided early in life and often, students can begin to build a comfortable sense of self and a sense of personal responsibility for their own health behaviors.

The **Contemporary Health Series** was created to help teachers provide the most sensitive, individually responsive skills and cognitive training possible in a comprehensive health environment. Health topics are addressed in a collection of modules, allowing the teacher to choose one module for in-depth study or mix-and-match according to broader health program needs. Activities challenge students to acquire and use knowledge, encourage the development of personal integrity and build decision-making skills. All lessons are structured to promote teacher-student communication and focus on personal growth as well as academic learning.

Contemporary health teachers need resources that affirm the learning partnership that exists between student and teacher. We believe this series promotes both a partnership and a bridge to encourage healthful decisions by young people.

About the Workbook

This workbook has been designed for students participating in the curriculum *Into Adolescence: Learning About HIV.* All student pages and most transparency masters from the curriculum are included. Teacher Background Information has not been provided in the workbook.

Specific pages from *Into Adolescence: Learning About HIV* that are not found in this workbook are

- **SexuallyTransmitted Disease Overview** (2 pages) from Lesson 8.
- **Symptoms Clue Sheet** from Lesson 11.

Sample Article

New York Times Sunday June 28, 1992

AIDS, Fatally Steady in the U.S., Accelerates Worldwide

Back in the mid-1980's, when every scrap of information about AIDS was treated as urgent news, the Centers for Disease Control issued new totals for AIDS cases and deaths every week. In 1989, with trends assuming a familiar contour, they switched to once a month. This year, it became once every three months.

No one is complaining because, barring a medical breakthrough, the course of AIDS in the United States appears to be depressingly predictable. Researchers now speak of a "mature" epidemic, of the "plateauing" of new cases and deaths, and of a pool of H.I.V.-infected people that is in a "steady state."

But what plateaus, and what a steady state.

Through March, 218,000 cases of AIDS had been reported, and 139,000 deaths. Allowing for underreporting, the C.D.C. believes that from 50,000 to 60,000 people will develop AIDS during each of the next few years, according to Dr. Harold Jaffe, acting chief of the AIDS division.

About 45,000 people will die of AIDS this year, Federal experts believe, and the toll will rise until it levels off at about 50,000 a year by 1994.

In other words, in the next three or four years, as many Americans will die of AIDS as did in the sad, shocking 11 years since the disease was detected. And that will be far from the end of it.

The C.D.C. estimates, very roughly, that one million Americans are infected with H.I.V., the virus that causes insidious damage culminating in AIDS. And they believe that 40,000 to 80,000 are newly infected each year — about the same number who die. Hence, a "steady state."

If the epidemic is leveling off here, it is not in the world as a whole. In Africa and Southeast Asia, it is spreading rampantly. Worldwide, perhaps 10 million people are now infected and 40 million may be by the year 2000, according to World Health Organization projections that some experts consider conservative.

Even in the United States, which is more capable than most countries of galvanizing a response, the numbers may be losing the power to horrify.

"It's astounding to me, but most places I go, people hardly seem to know there's an epidemic," said Dr. June E. Osborn, dean of the University of Michigan School of Public Health. Except on the East and West Coasts, she said, "You talk about the numbers involved and people look at you like you're making it up."

The crisis means that programs like Medicaid and Social Security must pay more. But discretionary spending — money for research, prevention and patient services like housing — is leveling off.

Dr. Osborn worries that the White House and Congress are thinking, in effect, "maybe we've done enough about AIDS for now." On top of weariness and disbelief, a perception that AIDS mostly threatens poor people and minority groups may also be sapping public generosity.

Of the 40,000-plus people infected each year, perhaps a third are drug abusers, said Dr. James Allen, director of the National AIDS Office at the Public Health Service. At least another third are gay men. Most of the rest are infected heterosexually — and most of these are black and Hispanic women. Up to 2,000 babies are born infected each year, and most die within several years.

People who are tested and get good counseling are less likely to infect others, research suggests. But one of the major reasons to get tested is the chance to stave off illness with frequent doctor visits and early drug treatment that costs thousands of dollars a year — care that many poor people do not qualify for until they are so sick that they are disabled.

"What incentive do people have to change their behavior if the system says, 'get tested and there's nothing else we can do for you'?" said Jeffrey Levi of the AIDS Action Council.

DESCRIPTIONS OF NEWS CATEGORIES

News articles about HIV and AIDS can usually be classified under more than one of the following categories. Decide which category you think is most appropriate by using these descriptions. Look at key words in headlines to help you make decisions.

Statistics

Many articles focus on updates of local, state or national statistics. These can be based on organized polls, informal estimates or Centers for Disease Control (CDC) reports.

Civil Rights

Articles will quite often focus on social issues. When these issues deal with individual rights or discrimination in areas such as employment, housing, mandatory testing, etc.—then they belong in this category.

Economics

Any articles having to do with money will fit here. These can range from local fund-raisers to the federal budget.

Research and New Developments

Scientists and doctors all over the world are studying HIV and AIDS. Development of new drugs and the effectiveness of currently used drugs and treatments will fit here.

Government

As the problems related to HIV-infection and AIDS intensify, all levels of government are becoming more actively involved. Local school boards are making policy regarding curriculum and other matters. State legislatures are considering mandatory testing and more funds for research. Whenever people are making legal decisions for others in relation to HIV infection, the articles belong in this category.

People

Some articles are simply special interest or feature stores focusing on the individual lives of persons infected with HIV. When the main thrust is to highlight people, the articles belong here.

Health

There may be some articles that fit best under a larger category called health. One example would be an article suggesting a diet for persons infected with HIV that would be better for their immune systems.

NEWSPAPER ARTICLES

Names of Group Members: ____________________

- -

EXAMPLE **Recorder's Name** Jeff

Title: Babies Infected with HIV by Infected Mothers on the Rise

Category: People or Health

Reason: This article could be put under Health because it is talking about babies becoming infected with HIV. This could also be put under People because it focuses on babies.

- -

ARTICLE 1 **Recorder's Name** __________

Title: __________

Category: __________

Reason: __________

- -

ARTICLE 2 **Recorder's Name** __________

Title: __________

Category: __________

Reason: __________

Recorder's Name ______________________

ARTICLE 3

Title: ______________________

Category: ______________________

Reason: ______________________

____

____

Recorder's Name ______________________

ARTICLE 4

Title: ______________________

Category: ______________________

Reason: ______________________

____

____

Recorder's Name ______________________

ARTICLE 5

Title: ______________________

Category: ______________________

Reason: ______________________

____

____

ARTICLE 6 **Recorder's Name**____________________

Title:____

Category:____

Reason:____

____

____

ARTICLE 7 **Recorder's Name**____________________

Title:____

Category:____

Reason:____

____

____

QUESTIONS FOR THE EXPERT

Develop ten questions to ask the expert and fill in the following spaces. Indicate whether the question is a who, what, where, why, when or how type question.

Sample Question: *Can you become infected with HIV by drinking from the same glass as a person who is infected?* **Type:** *How*

Question #1: ____________________

____________________ **Type:** __________

Question #2: ____________________

____________________ __________

Question #3: ____________________

____________________ __________

Question #4: ____________________

____________________ __________

Question #5: ____________________

____________________ __________

Question #6: ____________________

____________________ __________

Question #7: ____________________

____________________ __________

Question #8: ____________________

____________________ __________

Question #9: ____________________

____________________ __________

Question #10: ____________________

____________________ __________

My question for the expert: ____________________

____

Information Verification Form

NAME ____________________
DATE ____________________

Source: Title ____

Author ______________________ Publisher ________________________

Date ________________ Vol. ________ Pages ___________

Circle One: Book Encyclopedia Magazine Newspaper

Pamphlet Resource Person Other

QUESTION: ____
____

ANSWER: ____
____

Information Verification Form

NAME ____________________
DATE ____________________

Source: Title ____

Author ______________________ Publisher ________________________

Date ________________ Vol. ________ Pages ___________

Circle One: Book Encyclopedia Magazine Newspaper

Pamphlet Resource Person Other

QUESTION: ____
____

ANSWER: ____
____

EPIDEMIC FACT SHEET 1

The Bubonic Plague in Europe

Epidemics were common in the Middle Ages, occurring about every 25 years or so. The worst plague ever recorded in Europe was The Great Plague of 1348-1349. This was also called "The Black Death." There was a very high death rate. About 25 million people died, which was about one-fourth of the total population.

Everything stopped during the epidemic. Trade stopped, people produced very little food, the courts stopped meeting and there was no policing of crimes.

Bubonic plague was easily transmitted. People contracted it from the bites of fleas who had gotten the infection from infected rats. It was a very painful disease that killed people in one to three days from the time they were bitten by the flea.

Living conditions in the cities were crowded and unsanitary; rats and fleas flourished. Many people were infected and the disease spread rapidly. Almost everyone who got the disease died. There was no treatment and no cure.

People did not know how the disease was caused. They were afraid of catching it from those already infected, so the sick were often abandoned to die alone.

No one wanted the disease. They prayed to God to protect them. Some worshiped the devil and wore amulets or charms. Some tried to ward off the disease by chanting incantations or using a magic word, "Abracadabra." It was hoped that burning incense or leaves or burning things that filled the air with foul smells was a preventative. Some people stopped bathing, others stopped having sex. Some people believed the night air was poisonous. Some doctors recommended drinking or washing with goat urine.

In many communities in Europe, Jews were blamed for causing or deliberately spreading the plague. They were accused of poisoning wells and planning the destruction of the Christian population, even though Jews were dying of the plague as much as Christians. Mass persecutions of Jews were common. Hundreds of thousands of Jews were massacred throughout Europe during these times. When the plague ended, so did the persecutions.

Adapted from *Teaching AIDS,* 3rd ed., ETR Associates, 1992, Santa Cruz, California.

EPIDEMIC FACT SHEET 2

The Bubonic Plague in San Francisco, California

Bubonic plague appeared in San Francisco in 1900. A Chinese man was the first to be diagnosed with the disease. Most other cases were among the Chinese. The San Francisco Board of Health believed Chinatown was a source of the disease because of "unwholesome odors."

The Chinese were blamed for the disease, and the city, state and federal authorities took action; Chinatown residents were placed in quarantine.

No changes were made in the poverty or overcrowded conditions in Chinatown. The city did not even provide health care to the quarantined people of Chinatown.

Chinese and Japanese could not leave California without a federally issued medical certificate. Detention camps for San Francisco's 14,000 Chinese residents began to be prepared.

The State Board of Health recommended that Chinatown be demolished and saturated with chloride of lime and carbolic acid. The 1906 earthquake destroyed Chinatown before the plan could be carried out.

Another outbreak of the plague occurred in 1907 in San Francisco. This time few of the sick were Chinese, most were White. The Board of Health carried out a citywide program for killing infected rats and their disease-bearing fleas. The disease was stopped.

Adapted from *Teaching AIDS*, 3rd ed., ETR Associates, 1992, Santa Cruz, California.

EPIDEMIC FACT SHEET 3

United States—STDs in Teenagers

Sexually transmitted diseases, also called STD, or sometimes VD, are usually passed from person to person during intimate sexual contact. Currently, teenagers (and young adults) are at risk in an epidemic of STD.

One in seven teenagers currently has an STD. Eighty-five percent of all reported cases of STDs are in people 15-30 years old.

The most common of the sexually transmitted diseases is gonorrhea. It is estimated that well over 1,000,000 people in the United States have gonorrhea today. Gonorrhea can cause death in rare cases. It can cause sterility (not being able to have children) in both males and females. If a mother has gonorrhea when she gives birth, it may get into her baby's eyes and cause an infection that could lead to blindness.

Gonorrhea can be treated with penicillin. The symptoms are different in males and females. In males, urethritis often occurs so a male feels pain inside his penis when he urinates. He may also have a watery dripping from his penis that becomes white to green-yellow in color. About 80 percent of females have no symptoms. A female can have a discharge from her vagina that may spread bacteria into her urinary tract. Like the male, she may have a burning feeling when she urinates.

Doctors and health clinics can diagnose gonorrhea with a simple laboratory test. Treatment must begin immediately if gonorrhea is diagnosed. Sexual partners need to be informed so they can be tested and treated.

Laws regarding medical treatment of STD vary from state to state. In California, anyone 13 or older can be confidentially diagnosed and treated for STD without parental consent.

STD can be prevented by abstaining (not having) from sex altogether. It is important to abstain from sex when one partner is infected with an STD. Limiting the number of partners a person has sex with also decreases a person's risk. Proper use of a condom (rubber) can prevent transmission of gonorrhea and other STD.

Adapted from *Teaching AIDS,* 3rd ed., ETR Associates, 1992, Santa Cruz, California.

EPIDEMIC FACT SHEET 4

Yellow Fever

Yellow fever has caused many deaths throughout recorded history. Some of the recorded epidemics are:

1699 - In Charleston, South Carolina, and in Philadelphia nearly one-sixth of the population dies.
1741 - 10,000 die in Cadiz, Spain.
1793 - During the worst epidemic in any U.S. city up to this time, 5,000 die in Philadelphia.
1798 - in New York City 2,086 deaths.
1800 - 80,000 deaths in Spain.
1802 - 29,000 of Napoleon's soldiers die in the Dominican Republic.
1810 - 25,000 deaths in Spain.

Yellow fever is a violent disease caused by a virus transmitted by the bite of a mosquito. It has a sudden onset with fever, headache, backache, exhaustion of the body, nausea and vomiting. The death rate can be as low as 5 percent with lifetime immunity for survivors. During epidemics the death rate can be as high as 50 percent.

In 1902, Army Surgeon W.C. Gorgas was able to control an epidemic of yellow fever in Havana, Cuba, by killing mosquitoes and destroying the breeding area. He was able to do the same in Panama two years later. Construction of the Panama Canal was then started.

Today immunization is available for people going into areas of possible infection. Vaccination will last up to 17 years. There have been only a few cases in the Americas since 1942 (some in Trinidad, West Indies, in 1954). Cases are still reported in parts of Africa near rain forests.

EPIDEMIC FACT SHEET 5

Smallpox

Smallpox has caused many deaths throughout recorded history. Some of the recorded epidemics and important developments in treatment are:

1616 - Kills almost all of the Indians in New England.
1667 - Spreads throughout Virginia.
1697 - Spreads to Charleston, South Carolina.
1713 - Outbreak reported in Cape Colony, South Africa.
1740 - Berlin, Germany reports an outbreak.
1800 - First vaccination in America given by the inventor to his son.
1802 - James Smith, a Maryland physician, opens a clinic that gives free smallpox vaccinations to the poor.
1853 - Vaccination against smallpox is made compulsory in England.

This serious disease is presently under control because of the worldwide use of vaccine. Though now in control, in the past the disease has caused much death and disfiguration.

This infectious and highly contagious disease is caused by a virus. The disease comes on very quickly and is accompanied by a very high fever, headache and a severe backache followed by deep eruptions on the skin. Fatality rates of 5-15 percent were generally experienced.

The disease was generally transmitted by close contact with the infected person, including contact with respiratory discharges or sores on the skin or materials contaminated by the victim. Airborne spread did not often occur. Household, school and hospital association with infected people offered great risks.

Victims were usually put into quarantine, as were all members of their family and others they had had contact with. Daily inspections of these quarantined people were made for 17 days for signs of the disease.

Permanent immunity for people who lived through the time when the disease occurred; very few people had it a second time. This was the important clue that led scientists to search for a vaccine.

EPIDEMIC FACT SHEET 6

Polio

Infantile paralysis (poliomyelitis), has been a problem since early times. Human remains from 3700 B.C. indicate the disease. Some of the recorded epidemics and important developments in treatment are:

1916 - 27,000 U.S. cases.
1943 - 1,151 deaths, thousands paralyzed.
1952 - 58,000 U.S. cases.
1954 - Dr. Jonas Salk develops vaccine.
1955 - August 12, U.S. Congress passed the Poliomyelitis Vaccination Act; enough money made available so all children could be vaccinated.
1955 - Albert Sabin develops oral vaccine.
1957 - 6,000 U.S. cases.

In 1907, poliomyelitis (polio) was confirmed to be an infectious disease by Otto Ivar Wickman (German). Several mild epidemics were noted in colonial times, but the disease was not known to the general public until 1916. During that year in New York City alone, 9,000 children were infected; of these, 2,000 died.

Polio occurred worldwide before large-scale immunization programs were carried out. During 1971-1978 a yearly average of only 15 cases was reported in the United States, 9.6 in the United Kingdom, 2.8 in Canada.

An infection that is caused by the polio virus quickly becomes severe. Symptoms range from unapparent signs to fever to paralysis and possibly death.

The virus multiplies in the alimentary tract (between mouth and anus). It invades the central nervous system and attacks motor cells, resulting in paralysis. This leaves the infected body part limp, most often the lower part of the body. Paralysis of muscles for breathing and swallowing may threaten life.

The disease is transmitted by direct contact. In a few cases, foods and other fecally contaminated materials have been discovered to be the sources of transmission. There is no reliable evidence of spread by insects or virus-contaminated sewage, and water is seldom involved. Where sanitation is good, discharge from the throat as in coughing becomes the major mode of transmission. The virus is more easily detectable for a longer period in feces than in throat secretions.

DISEASE QUESTIONS WORKSHEET

Group Members' Names:

____________________ ____________________

____________________ ____________________

NAME OF DISEASE: ____________________

1. What is the **infectious agent** (cause) for this disease?____________________

2. What are some of the **symptoms** of this disease?____________________

3. How is this disease **transmitted** to people?____________________

4. What are some of the **effects** of this disease? ____________________

5. How can this disease be **treated?** ______________________________

____

____

6. How can this disease be **prevented?** ____________________________

____

____

DESCRIPTION OF DISEASES

Dysentery

Dysentery is a disease caused by bacteria. Common symptoms of dysentery are diarrhea and stomach pains. The bacteria can be passed to people through food, water or flies. The effects of the disease range from mild symptoms to death caused either by a lack of water (dehydration) or by bacterial poisoning. Dysentery can be treated with antibiotics (medicine), along with rest and a heavy liquid diet. It can be prevented by cleanliness and careful storage of food and water.

Leprosy

Leprosy is a disease caused by bacteria. A common symptom of leprosy is sores on the skin. While the transmission of the disease is not completely understood, it is known that continued close contact can transmit the disease.

The effects of the disease include deformities to body extremities (hands and feet), tissue deterioration and in some cases, death. Leprosy is treated with drugs (sulfones) and those infected are usually isolated. There is no known way to prevent leprosy.

Typhoid Fever

Typhoid fever is a disease caused by bacteria. Common symptoms include fever, being sick to the stomach and pneumonia. The disease can be transmitted through food or water that has been contaminated by urine or feces. Some of the long-range effects of the disease include deterioration of the heart, lungs, liver, skeletal and muscular systems, and in some cases, death. Typhoid fever can be treated with modern drugs. It can be prevented by cleanliness, isolating the infectious agent and a short-term vaccine.

Polio

Polio is a disease caused by a virus. Common symptoms are headaches, neck and back pains, fever, vomiting, stomach pains and constant tiredness. Droplets can be breathed in through the nose or swallowed through the mouth. Some of the effects are muscular deformity, partial or total paralysis or loss of normal breathing ability. Polio is treated with total bed rest and pain relievers. It can be prevented by vaccination or by isolation of persons infected.

Rubella

Rubella is a disease caused by a virus. Some common symptoms are fever, coughing and a rash. It can be transmitted by breathing in droplets. Some of the effects are ear infections, pneumonia and even death. Babies born to mothers who had rubella during pregnancy can be born with birth defects. Rubella can be treated with rest, aspirin* and liquids. It can be prevented by vaccination or isolation of persons infected. (*Note: Aspirin is not recommended for children and teenagers. An aspirin substitute should be used.)

Bubonic Plague

Bubonic plague is a disease caused by bacteria. This disease was called the "Black Death" in the Middle Ages when it killed millions of people throughout the world. It is still a problem in the world today. Some common symptoms are fever, coughing, being sick to the stomach and large sores. It can be transmitted by flea bites or in the feces of fleas that are carried by rats or other rodents. Some of the effects are scarring of the skin, deformities, weakness of vital organs (heart and lungs) and in some cases, death. Bubonic plague can be treated with antibiotics (medicine). It can be prevented by controlling the rat population and cleanliness and through vaccinations.

Malaria

Malaria is a disease caused by protozoa. Common symptoms are chills, fever, sweats and weakness. It is transmitted through mosquito bites. Some of the effects are damage to the vital organs (heart and lungs) and reduction of red blood cells. Malaria can be treated with modern drugs (quinine, atabrine and primaquine). It can be prevented by destroying mosquitoes and their nesting places.

Tuberculosis

Tuberculosis, commonly known as TB, is caused by bacteria. Common symptoms are a dry cough and rise in body temperature. It can be transmitted by droplets inhaled in air or dust and is sometimes present in milk or food. TB can spread quickly among people who live in overcrowded conditions. Some effects are destruction of lung tissue, skin and joints. Tuberculosis can be treated with rest and drugs. If it is discovered early, it can be cured.

My Health Inventory

Diet/Nutrition

_____ I eat from a variety of foods, including fruits, vegetables, grains, proteins and dairy products, every day.
_____ I am often on a diet to lose weight.
_____ I choose candy bars and french fries over vegetables and fruit.

Sleep

_____ I get about 8 hours of sleep every night.
_____ I watch TV until 11 or 12 o'clock at night.
_____ I often have a hard time falling asleep.
_____ I hate to get up in the morning.

Hygiene

_____ I wash my hands after going to the toilet.
_____ I wash my hands before eating.
_____ I take a bath or shower every day.
_____ I change my bed and wash my clothes regularly.

Fitness

_____ The only exercise I get is at school during gym.
_____ I exercise regularly.
_____ I know I should exercise but I prefer watching TV.

Risk Behavior

_____ I buckle up every time I get in a car.
_____ I want to live a long time; I don't take unnecessary chances.
_____ All this talk about being safe spoils having a good time.

Drugs/Alcohol

____ I will not try drugs or alcohol during my teen years.
____ I think it is OK to drink and use drugs on special occasions.
____ It's OK to use drugs and alcohol to relax and have fun.

Stress

____ I have someone to talk to when I'm upset.
____ I often get angry and blow up.
____ Sometimes I feel so sad I would like to die.

Prevention

____ I think I have all my immunizations.
____ I have had a check-up with my doctor in the last 3 years.
____ I have been to the dentist in the last year.

COMMUNICABLE DISEASE OVERVIEW (1)

DISEASE	INFECTIOUS AGENT	SYMPTOMS	TRANSMISSION
DYSENTERY	bacteria* *some types of dysentery can be caused by a virus or a protozoa	stomach pains, diarrhea	food or water, flies
LEPROSY	bacteria	sores on the skin	unclear, prolonged close contact
TYPHOID FEVER	bacteria	fever, cough, sick to one's stomach, aching, heart failure, pneumonia	food or water contaminated by feces or urine
POLIO	virus	headaches, neck and back pains, fever, vomiting, stomach pains, tiredness	respiratory droplets ingestion, fecal contamination
RUBELLA	virus	fever, cough, rash	inhaling of droplets, contact with open sores
BUBONIC PLAGUE	bacteria	fever, cough, sick to one's stomach, large sores	from rats or other rodents by flea bites, or in feces of fleas
MALARIA	protozoa	chills, fever, sweats, weakness	saliva of the female mosquito
TUBERCULOSIS	bacteria	dry cough, rise in body temperature	droplets inhaled in air or dust, sometimes present in milk or food

COMMUNICABLE DISEASE OVERVIEW (2)

EFFECTS	TREATMENT	PREVENTION	DISEASE
ranges from mild attack to death by lack of water or bacterial poisoning	antibiotics (medicine), rest, heavy liquid diet	cleanliness, careful storage of food and water	**DYSENTERY**
deformities of extremities, tissue deterioration, untreated leads to death	isolation, sulfones (medicine)	unknown	**LEPROSY**
deterioration of heart, lungs, liver, skeletal and muscular systems, death	modern drugs	cleanliness, isolation of carrier, short-term vaccine	**TYPHOID FEVER**
muscular deformity, partial or total paralysis, loss of normal breathing ability	total bed rest, analgesics (medicine)	vaccination, isolation	**POLIO**
ear infections, pneumonia, death, birth defects	rest, aspirin, liquids	vaccination, isolation	**RUBELLA**
scarring of the skin, deformities, weakening of vital organs, death	antibiotics (medicine)	rat control, sanitation, limited vaccine	**BUBONIC PLAGUE**
vital organ damage, reduction of red blood cells	modern drugs (quinine, atabrine, primaquine)	destroying mosquitoes and their nesting places	**MALARIA**
destruction of lung tissue, skin, joints	rest, drugs	early detection prevents further damage	**TUBERCULOSIS**

164

Drawing Conclusions—Communicable Disease

Name________________________________

Date_________________________________

1. List some infectious agents that cause disease.

2. What are some common symptoms of diseases?

3. List some ways organisms that cause disease (infectious agents) are transmitted.

4. List some ways diseases are prevented from being transmitted.

5. List some ways diseases are treated.

6. Which diseases are the least and most harmful and why?

7. Which diseases are associated with lack of cleanliness?

8. Make a good health rule for the prevention of many communicable diseases.

Other important rules are:

DESCRIPTION OF SEXUALLY TRANSMITTED DISEASES

HIV

HIV is the virus that causes AIDS. It attacks and weakens the immune system. A weak immune system can't protect the body from disease and infection.

HIV is a disease with many stages. People can have HIV for years without getting sick. They may look and feel healthy. They may not even know they are infected. But people with HIV can pass the virus to their sex partners or to someone they share a needle with. A pregnant woman with HIV can pass the virus to her fetus.

Many of the symptoms of HIV infection are also symptoms of minor illnesses or infections. But with HIV, the symptoms either don't go away or keep coming back. These symptoms include unexplained weight loss or tiredness, fever and night sweats, diarrhea, swollen glands, unexplained dry cough, white spots or unusual sores on the tongue or mouth.

AIDS is the stage of HIV disease when a person's immune system gets very weak. When this happens, other diseases and infections can enter the body. These diseases include some rare cancers and pneumonia. There is no known cure for HIV infection, but early treatment can delay the start of symptoms.

Chlamydia

Chlamydia is a sexually transmitted disease caused by bacteria. The common symptoms of chlamydia include an abnormal discharge from the penis or vagina, a burning sensation when urinating and for women, bleeding between periods. Some people have no symptoms. The bacteria can be passed from person to person during sexual contact, and babies may get it from their mothers during birth.

Some of the effects of chlamydia are severe damage to the reproductive organs, infertility in women and sterility in men (not able to have children). Chlamydia can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity (not having sexual intercourse), or if sexually active, by knowing your partner does not have the bacteria and by using condoms with foam or contraceptive jelly.

Genital Warts

Genital warts are a sexually transmitted disease caused by a virus. The common symptoms are small, bumpy warts on the sex organs or anus. They are transmitted through skin-to-skin contact with genital warts. The virus can be passed from mother to baby during birth and can cause breathing problems in the newborn. Genital warts can grow larger, spread to more areas and become more serious. They can be treated with chemicals or removed by burning, freezing, lasers or minor surgery.

Genital warts can be prevented by abstaining from sexual activity (not having sexual intercourse), or if sexually active, by knowing your partner does not have the virus and by checking for the presence of warts. Washing exposed areas with soap and water before and after contact will also help. Using condoms and foam or contraceptive jelly can also help prevent exposure.

Gonorrhea

Gonorrhea is a sexually transmitted disease caused by bacteria. The common symptoms include abnormal discharge (pus) from the penis or vagina, a burning sensation when urinating and in women, stomach pains. Some men and most women may have no outer symptoms. The bacteria can be transmitted from person to person through sexual contact. Babies can get it from their mothers during birth.

Some of the effects of gonorrhea are severe damage to the reproductive organs, infertility in women and sterility in men (not able to have children), heart trouble, skin disease and arthritis.

Gonorrhea can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity (not having sexual intercourse), or if sexually active, by knowing your partner does not have the bacteria, washing exposed areas before and after contact and using condoms and contraceptive foam or jelly.

Herpes

Herpes is a sexually transmitted disease caused by a virus. Common symptoms include small, painful blisters—usually on the sex organs—and a flu-like feeling. Some people have no symptoms. Herpes is transmitted during sexual contact or by direct contact with a herpes sore. Babies can get it from their mothers during birth.

The effects include mild to severe attacks of painful sores. There is no known cure for herpes, but some drugs are used to reduce symptoms. It can be prevented by avoiding contact with herpes sores, abstaining from sexual contact or using condoms and contraceptive foam or jelly.

Pubic Lice

Pubic lice are a sexually transmitted disease caused by parasites (tiny insects or protozoa) that live in pubic hair, armpits or eyebrows. Common symptoms include itching or the appearance of lice in the hair, around the sex organs, armpits or eyebrows, and pin-sized blood spots on underwear. Pubic lice can be transmitted through close physical contact with someone who has pubic lice or by using the same clothing or bedding as someone who has them.

The effects include itching and discomfort that get worse if not treated. Pubic lice can be treated with special lotions and shampoos, and all clothing and bedding must be washed in hot water. They can be prevented by avoiding contact with someone who has lice. Sexual partners should be checked for signs of pubic lice.

Syphilis

Syphilis is a sexually transmitted disease caused by bacteria. The common symptoms in the first stage are painless, reddish-brown sores on the openings of the sex organs and possible swollen glands. In the second stage, after six weeks, a rash may appear on the body and people may feel like they have the flu. Syphilis is transmitted through sexual contact. Babies can get it from their mothers during pregnancy.

Some effects are heart disease, brain damage, blindness and death. Syphilis can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity or if sexually active, by knowing your partner does not have the bacteria, washing the sex organs before and after sexual contact and using condoms and contraceptive foam or jelly.

NGU

NGU is a sexually transmitted disease caused by bacteria. Some common symptoms in men include an abnormal discharge from the penis, itching and pain while urinating. Women may have an abnormal discharge, but usually show no symptoms. NGU is transmitted through sexual contact. Babies can get it from their mothers during birth.

Effects include a more serious infection of the reproductive organs and infertility in women and sterility in men (not able to have children). NGU can be treated with antibiotics (medicine). It can be prevented by abstaining from sexual activity or if sexually active, by knowing your partner does not have the bacteria, washing the sex organs before and after contact and using condoms and contraceptive foam or jelly.

STD QUESTIONS WORKSHEET

Group Members' Names:

______________________ ______________________

______________________ ______________________

NAME OF DISEASE:

1. What is the **infectious agent** (cause) for this disease?

2. What are some of the **symptoms** of this disease?

3. How is this disease **transmitted** to people?

4. What are some of the **effects** of this disease?

5. How can this disease be **treated**?

6. How can this disease be **prevented**?

IMMUNE SYSTEM OVERVIEW

NAME ______________________________ DATE ______________

Directions: Read the following. Write definitions on **Key Vocabulary Worksheet** using this overview as a resource.

A *disease* occurs when there is an upset or breakdown in the body functions. People recover from some diseases in a short time. Other diseases last a long time. Some leave permanent damage. Other diseases can cause death.

Diseases can be caused by *pathogens*, which are disease-producing organisms or substances sometimes called "germs." Some *viruses, bacteria, fungi and protozoa* are pathogens. All of these are very small and can be seen only with a powerful microscope.

A virus is a bundle of genetic material with a special coating made of protein. A virus carries instructions for copying itself. A virus is not actually alive because it cannot reproduce itself. *It must invade a living cell to reproduce.*

A few of the diseases caused by viruses are *chickenpox, measles, mumps, polio, influenza and the common cold.* HIV is the name of the virus that can lead to AIDS.

When diseases are passed or *transmitted* from one person to another they are said to be *infectious* or *contagious.* There are three ways diseases can be transmitted: *by air, by water* and *by direct contact.*

Our bodies have ways of protecting us from disease. Our skin is strong and keeps out many diseases and infections.

The *white blood cells* are another protector. If you get cut and the cut is not clean, white blood cells surround and kill the germs. They help repair the damaged tissue.

When a virus like chickenpox enters the body, the *immune system* produces chemicals called *antibodies.* The antibodies fight the disease. Some antibodies, like those for chickenpox, can stay in the body so the person will not be infected again. A person with such antibodies is said to have *active acquired immunity.*

It is also possible for a person be *exposed to* or to come in contact with a disease and not become *infected.* Or, a person may be infected with a disease and have no outward *symptoms*, but can transmit pathogens to others. Sometimes people come in contact with a disease, and because they have a healthy immune system they get sick for a very short time. Sometimes they are infected and become quite ill. The time between *infection* (when the pathogen enters the body) and the signs of the disease is the *incubation* period.

A person who has a disease that is *contagious* is called a *vector* or is said to be *infected.* Vectors may have symptoms of the disease or may look and feel perfectly healthy.

Some people have a *natural immunity* and never get certain contagious diseases.

Scientists are able to make a substance that will make antibodies appear in the body without the person having to get sick. This substance is called a *vaccine. Passive acquired immunity* is created by the vaccine, which is generally injected (a shot). In some cases immunity wears off and vaccination is repeated with boosters every few years, as in the case of tetanus. When was your last tetanus shot?

KEY VOCABULARY

NAME____________________________________ DATE ______________

Directions: Read the **Immune System Overview**. Write a definition for each of the following words.

Antibody: ____________________________________

Vector: ____________________________________

Disease: ____________________________________

Exposure: ____________________________________

Infection: ____________________________________

Pathogens: ____________________________________

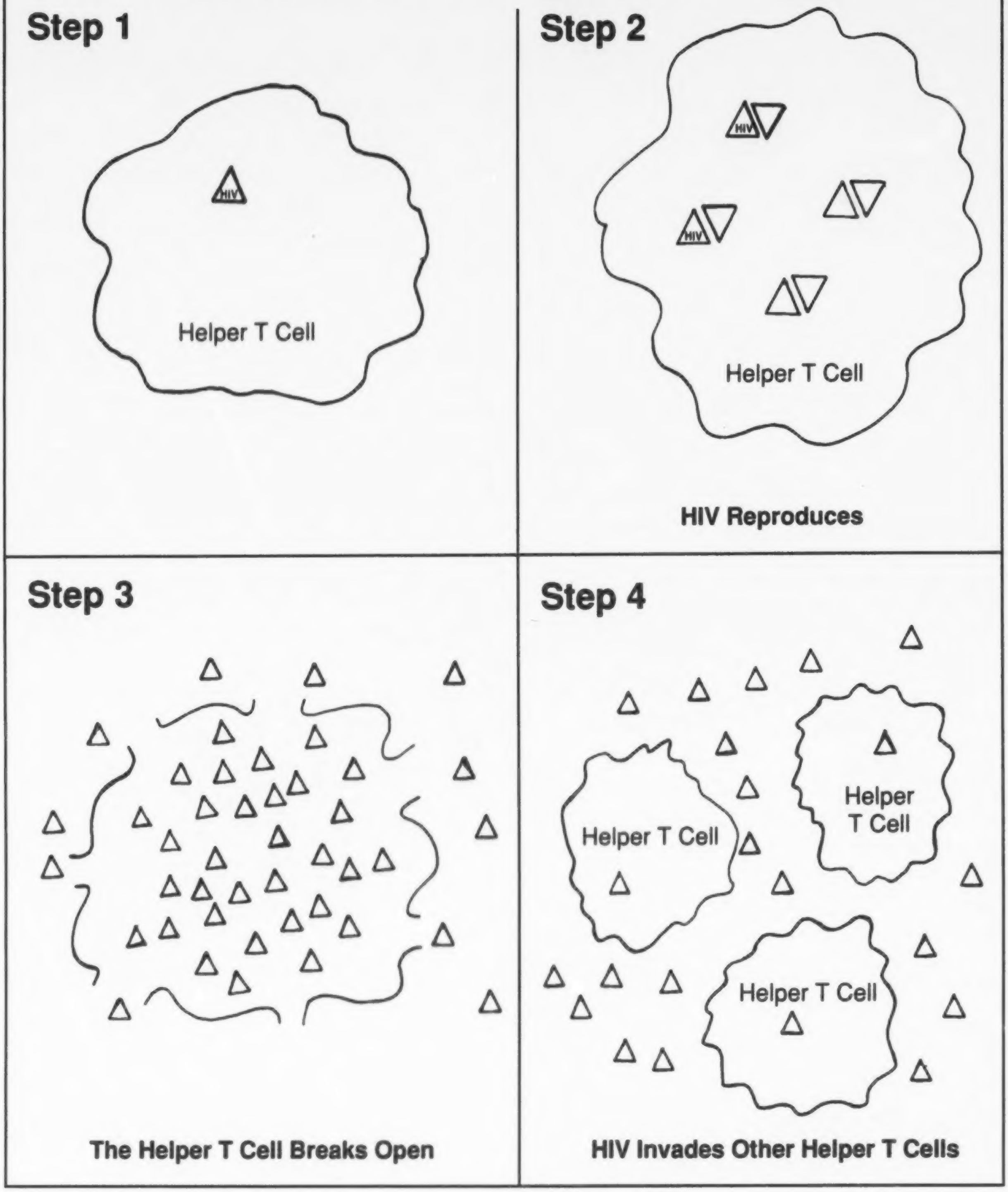
Vaccine: ____________________________________

White blood cells: ____________________________________

Active acquired immunity: ____________________________________

Passive acquired immunity: ____________________________________

DESTRUCTION OF HELPER T CELLS



HIV Reproduces

The Helper T Cell Breaks Open

HIV Invades Other Helper T Cells

TRUTHS AND MYTHS SCRIPT

(Four students are having lunch and talking during noon break.)

José: Hey, have you heard they're going to let a new kid infected with HIV into our class?

Mark: No way and no thanks!

Janet: You mean Mike. He's in my church. He's a pretty nice guy and smart, too.

Suzy: I hope I don't have to sit near him. What if he sneezed on me? My dad says you can get HIV just by kissing, so sneezing's probably the same.

José: What about us? If we have gym with him, we'd have to shower in the same room with him. All that sweat.

Janet: I can't believe you guys. You're crazy. Where'd you get those wacky ideas?

Mark: Well, you know, everybody's talking about it. My parents are ready to move me to another school. They won't even let me take the bus home anymore.

José: I don't even go in the bathrooms here anymore.

Suzy: And drinking faucets. It's only canned Coke for me these days.

Janet: You guys don't have to worry about any of that stuff. There's no way you can get HIV like that.

Mark: What makes you think you know so much?

Janet: Well, my mom's a nurse at the hospital. She has to keep up on HIV. And she took me to a conference with her last month. So I really do know a lot about the facts. But there's new information coming all the time.

José: So tell us some of these so-called facts.

Janet: Only if you promise to listen and not be sarcastic.

Suzy: I'll listen—I really want to hear this.

Janet: What about you guys?

Mark: Yeah, we'll listen. Promise.

Janet: To start with, HIV is not that easy to get. When it's outside the body, chlorine bleach can kill it. The problem is when it gets inside the bloodstream. So far, nothing can kill it.

José: That's why we don't want Mike around us. We don't want to get it inside us.

Janet: But there's no way you're going to become HIV infected from him. Sometimes HIV can be found in all body fluids, like tears and saliva, but they only have traces, and you can't become HIV infected from them.

Suzy: Really? I didn't know that. So I could even share the same glass with Mike and I wouldn't get HIV.

Janet: That's right. And you could shower in the same locker room, shake hands and probably even kiss him.

José: Ah, c'mon. I can't believe that. Are you telling me that you'd kiss Mike, knowing he is HIV infected?

Janet: I didn't say that. I'm not sure what I'd do. I'd have to think about it. But I am saying that there hasn't been a single case reported or proven where someone has been infected with HIV through kissing someone who has HIV. Some people say to avoid wet kissing if you want to be real safe, but there's still no proof.

Mark: If it's not that easy to get, how come so many people are getting it?

Janet: Many people who have HIV got infected before they knew how to prevent it.

Suzy: How do you prevent it?

Janet: You prevent it by knowing the facts—by knowing it can only be transmitted through blood, semen and vaginal fluids.

Suzy: What about newborn babies?

Janet: That's right. I forgot that. If a pregnant woman has HIV, her newborn baby can also be infected with HIV.

Mark: But what about the blood and semen and stuff?

Janet: Most people who have HIV got it either through sexual contact, from sharing needles or through blood transfusions. Now they have new tests for screening blood, so they don't expect many more HIV infections because of transfusions. And you could never get HIV by giving blood.

José: How did Mike get HIV?

Janet: He's a hemophiliac—which means every so often he needs blood transfusions. So before they had good ways to screen blood, Mike got a transfusion with blood that had HIV in it.

Suzy: What a drag! Poor guy!

Janet: Back to the ways you can get it. Sexual contact. That's probably the main way the virus has spread so quickly.

Suzy: There's no way! Sex is out for me. I'm never gonna have sex.

José: Oh, that's great! So we'll all find private islands and the human race will die out.

Janet: I don't think we have to be so drastic. But I know that I'm going to wait to have sex until I'm older and ready to handle all the responsibilities that go along with it—especially now.

Suzy: But even then, if you're older and more responsible, you could still get HIV if you decide to have sex.

Janet: That's true. We just have to be safe. We need to know the histories of our partners and we have to use protection.

Mark: I know a lot of people who are already sexually active. They're sure not gonna stop until they're more responsible.

Janet: You're probably right, Mark. If they aren't going to wait to have sex until they're married, then they have to be as safe as possible. They should always use condoms and contraceptive jelly with nonoxynol-9—it helps to kill the virus before it gets in the bloodstream.

José: How come sharing needles is so risky for HIV infection?

Janet: Because a little bit of blood from the person who used the needle last stays in the syringe, then it gets transferred into the bloodstream of the next person to use it.

Suzy: How do they expect people to stop sharing?

Janet: A lot of people probably won't. But if they clean their needles with bleach each time they use them, they stand a good chance of killing HIV.

Mark: What about doctors and nurses? They can get stuck with needles by mistake and get HIV, right? Isn't your mother worried?

Janet: It's true that health care workers have to be very careful when working with infected patients. But they are well educated and follow safe guidelines.

José: I heard that a bunch of doctors and nurses have gotten HIV.

Janet: That's not true, José. Very few doctors and nurses have been infected with HIV. And most of those that have become infected were not following safe health care guidelines.

Mark: HIV is really rotten.

Janet: It sure is. One of the worst things is that many people don't even know they have been infected. Sometimes it can take up to seven years or even longer before any symptoms appear.

Suzy: You mean people who have HIV in their systems can give it to other people and not even know it?

Janet: That's right, Suzy.

Mark: Do people who get infected always die?

Janet: That's a good question, Mark. Nobody knows for sure. They do know that many infected people who come down with symptoms die within two years. Some have lived much longer. We do know most people infected eventually get sick. And, because we don't have a good treatment, most of them will die eventually.

José: Even Mike?

Janet: Yeah, even Mike.

HIV TRUTH OR MYTH

Directions: Read the following statements about HIV (the AIDS virus) and decide whether they are **truths** or **myths**. Write the correct answer on the line in front of each statement.

________ 1. Chlorine bleach can kill HIV outside the body.

________ 2. You can get HIV from drinking faucets.

________ 3. You can get HIV drinking from someone's glass.

________ 4. Nothing can kill HIV, so far, inside the bloodstream.

________ 5. You can get HIV from attending school with a classmate who is infected.

________ 6. HIV can be found in most body fluids.

________ 7. You can get HIV from toilet seats.

________ 8. Tears and saliva have slight traces of HIV.

________ 9. No known cases of HIV infection have been transmitted through tears and saliva.

________ 10. HIV infection can be prevented.

________ 11. You can get HIV in showers.

________ 12. HIV can be transmitted through blood, semen and vaginal fluids.

________ 13. You can get HIV from sweat.

________ 14. HIV can be transmitted through unsafe sexual practices.

________ 15. HIV infection can be prevented through abstinence and safer sexual practices.

________ 16. You can get HIV through kissing on the lips.

________ 17. HIV can be transmitted through sharing contaminated needles.

________ 18. You can get HIV from an infected person's sneeze.

________ 19. Infected mothers can transmit HIV to their unborn babies.

SYMPTOMS: TRUE OR FALSE QUIZ

Directions: Read each sentence below and fill in the blanks with either **true** or **false**.

1. Physically fit people never get HIV. ________
2. Some people have been infected with HIV and don't even know it. ________
3. If you never engage in at-risk behaviors, you probably won't ever get HIV. ________
4. Purple spots on the skin and white sores in the mouth can be symptoms of HIV infection. ________
5. If you get regular exercise and eat well you can't get HIV. ________
6. Abstaining from sex and from sharing needles prevents HIV infection. ________
7. A special blood test can tell you if you've been infected with HIV. ________
8. If you have swollen glands and a fever, you probably are infected with HIV. ________
9. Some people infected with HIV are still good athletes. ________
10. If you maintain a normal weight, you haven't been infected with HIV. ________

I'VE GOT MY FREEDOM

Locomotion—that's what it is
Moving on the track—to destiny

Give me an A
Give me an I
Give me a D and an S
(Uhhh...uhh, uh-huh)

It stands for ALIVE
In a death sentence

Where is the hope, the faith, the dream?
Pick up the pieces and plot out that dream
Any one of us could die tomorrow

What do you want?
Follow that rainbow
On a horse up into the sky

Where, oh where has my little child inside
gone?
Where, oh where can it be?

I need to lighten up and learn to play
hey hey

I'm free from life games
As we usually play them
I can do what I want to do

Don't have to go to my
In-laws for tuna casserole
Or worry about parking tickets

I've got my freedom
To FLY, FLY, FLY...

Larry Folsom
(1961-1988)

"I've Got My Freedom" is reprinted with permission from *The Volunteer News of the Santa Cruz AIDS Project*, May/June 1988. Santa Cruz, CA: The Santa Cruz AIDS Project.

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Rank yourself (Circle 4,3,2,1 or 0) each day on your level of Participation/Learning in this class using the following criteria: **(4)** I came to class prepared, listened well to both the teacher and my peers, followed directions, contributed to the success of my group and completed assignments; **(3)** I did all but one of the above; **(2)** I was in class and didn't feel like working; **(1)** I disrupted the class process; **(0)** I was absent.

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ETR Associates
Santa Cruz, California

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